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ALASKA MEDICINE

Volume 19, Number 1 January 1977

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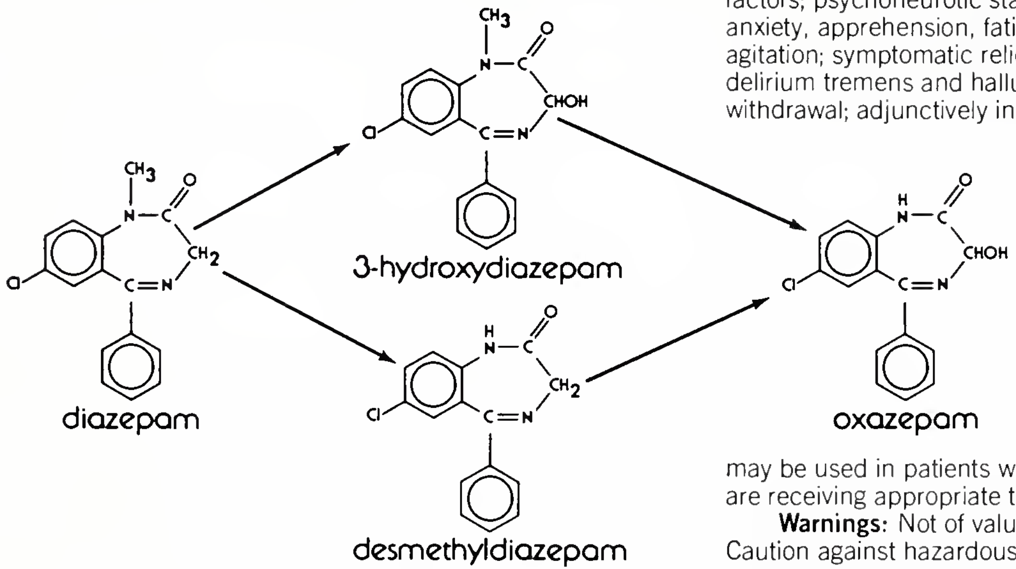
A pharmacokinetic character all its own



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Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

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ALASKA MEDICINE

Official Journal of the Alaska State Medical Association

1135 Eighth Avenue, Suite 6, Anchorage, Alaska 99501

Volume 19 January 1977 Number 1

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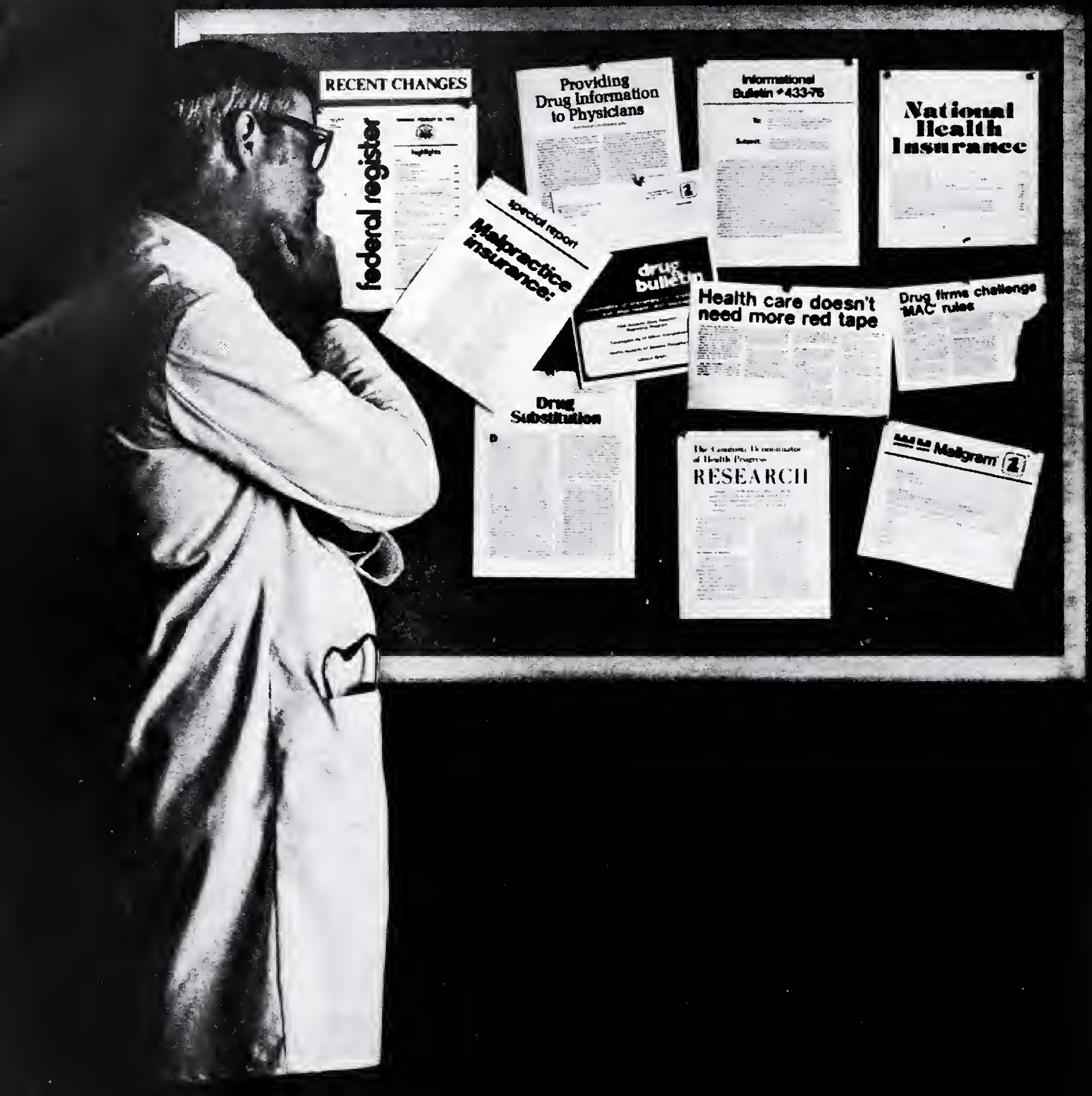
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THERE ARE A LOT OF PEOPLE GETTING BETWEEN YOU AND YOUR PATIENT.

Medicine today is in the spotlight, subjected to all nds of scrutiny. Your control over patient therapy is ing monitored, judged and occasionally abrogated, metimes by unknown third parties.

The worry is that in the wake of this focus, the rela- onship between you and your patient will be weakened, ithout offsetting benefits. Consider three examples:

Drug substitution In most states, pharmacy laws, gulations or professional custom stipulate that your on-generic prescriptions be filled with the precise prod- ts you prescribe. But in the last five years, a dozen or ore State laws have been changed, permitting the phar- acist in most cases to select a product of the same neric drug to fill any prescription.

Ironically, this dilution of physician control has ken place against a background of growing evidence at purportedly equivalent drug products may be in- uivalent, since neither present drug standards nor their nforcement are optimal. In fact, the FDA itself says it s not enforced the same standards for hundreds of ollow-on" products that it had applied to the original DA approvals. Thus physician control over patient erapy is being eroded with a risk that patients may be posed to drugs of uncertain quality.

The major advertised claim for substitution is reduced escription prices for consumers. Yet no documentation any significant savings has been produced.

MAC Maximum Allowable Cost, MAC for short, is Federal regulation designed to cut the Government's ug bill by setting price ceilings for drugs dispensed to edicare and Medicaid patients. Unless the prescriber rtifies on the prescription that a particular product is edically necessary, the Government intends to pay only r the cost of the lowest-priced, purportedly-equivalent, generally-available product. The effect of the program may be that elderly and indigent patients will be restricted to products which someone in Washington believes are priced right. Practicing doctors will have little to say about administration of the program, since Government will have absolute authority to make its choices stick.

The drug lag The future of drug and device research depends upon a scientific and regulatory environment that encourages therapeutic innovations. The American pharmaceutical industry annually is spending more than $1 billion of its own funds and evaluating more than 1,200 investigational compounds in clinical research. Disease targets include cancer, atherosclerosis, viruses and central nervous system disorders, among others. But there is a major barrier to the flow of new drugs to your patients: The cost of the research is more than ten times what it was, per product, in 1962; and whereas governmental clearance of new drug applications took six months then, it commonly consumes two years now.

The FDA needs adequate time, of course, to consider data. But it is equally clear that the present approval process contributes to needless delay of needed therapy. That's why the increased efficiency of the drug approval process is vital to all our futures.

If these issues concern you, we suggest that you make your voice heard—among your colleagues and your representatives in State legislatures and in Washington.

It could make a difference in your practice tomorrow.

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CATCH 400 — A BIT OF WHIMSY

Winthrop Fish, M.D.

Author's Note: Sometime ago Dr. R. Wilson chronicled the evolution of Alaska malpractice legislation. What follows is what might have happened in another place and another time. The events and characters are entirely fictitious. Any resemblance to persons alive, dead or in transit is entirely coincidental.

PROLOGUE

Progress finally came to the quiet, snowbound State of Alyeska — and with progress, crime. It wasn't that there were so many criminals raping and robbing and mugging and carrying on. It was just that what criminals there were kept raping and robbing and mugging and carrying on because they never went to jail. Or not for long. The people got very upset and blamed the police. The police got frustrated and blamed the people. Since the police couldn't keep the criminals in jail they took to accusing innocent people of crimes. Soon it wasn't safe to walk the street. You either got raped, or mugged or robbed or carried on . . . or you got arrested. The people wanted protection so they asked the legislature to help. Well, by now Governor Bluebird Hammock and his loyal advisors, Commissioner Staghorn A. Notme and his insurance director, Richard C. Crock, recognized the citizens' plight and determined to respond. A Governor's Crime Commission was the obvious answer. And it was done: with trumpets and flourishes and with adequate representation: The Peoples' Representatives (PR's), the criminals, the criminal advocates, the police, and, of course, the Crime Consumer representative. The Commission held hearings and deliberated at length but could not agree on anything at all.

CROCK'S CREDOS

Mr. Crock retired to his insurance offices to reflect on the problem. Then he made his truly brilliant intellectual leap: the evil seeds of criminality lie within every citizen, man, woman and child; every citizen has the potential for dark deeds; every citizen, then, clearly should pay now to repay SOCIETY for the evils he might someday commit. Thus, he formulated Crock's Credos.

Crock's Credo No. 1:	Every citizen is a potential criminal; the state can deny his right to work unless he pays ahead for crimes he or his neighbors might commit.
Crock's Credo No. 2:	The state can lawfully inspect, regulate and control any citizen to reduce the likelihood of his committing a crime.

Now, having long established insurance ties and connections, and being a lawyer himself, Crock knew that if the people had to pay to repay Society for what they might do, it would sound like insurance, and everybody would believe it was insurance and good for the people. He called it Mandatory Crime Insurance and presented it to the commission.

THE LAW

Whatever else, the Silver Fox was far from a fool. For the plan to fly, he had somehow to convince the people. He therefore took pains to insinuate himself into the confidence of the PR's, establishing an easy, first-name, buddy-buddy, I'm-on-your-side-pal relationship. For, to be sure, the PR's had other main priorities, namely, effective measures to actually reduce crime: better police protection, prompt trials, just punishment, protection against fraudulent

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crime consumers. Crock persuaded the PR's that Mandatory Crime Insurance was an absolute prerequisite to the crime reduction measures, and the PR's in turn persuaded the people. Thereafter, it was a shoe in. The criminals, criminal advocates, insurance people, police, and, of course, the crime consumer representatives, thought it was a great idea from the first. After all, they couldn't lose. Not all the people were convinced; some were avidly opposed. They were quickly and sometimes ruthlessly suppressed, told "not to rock the boat."

The commission duly produced its report and was praised by the governor. The legislature convened. With the governor, the PR's now, and all the other groups favoring Mandatory Crime Insurance, its enactment was certain. It would be Crock's Coup. He had captured a state.

But now the Crime Providers Lobby raised grave constitutional questions about the crime reduction measures of efficient police, prompt trials and just punishment. These were deleted in Free Conference Committee. Mandatory Crime Insurance . . . with provisions for more Meter Maids . . . was enacted and signed into law.

CICA

The legislation provided for the Crime Indemnity Corporation of Alyeska, which became known as the CICA. CICA was to implement the law, fix policy, set premium structure, collect premiums, issue policies, pay claims, etc. CICA's Board of Governors was appointed by the Governor of the State, had seven members, two of whom were PR's, the other five specifically defined as not PR's. It didn't really matter. Mr. Crock's office controlled the Board in any event. Holding several closed meetings the Board formulated CICA's basic plans:

1. CICA's motto: "CICA citizen and you've got him boxed."
2. *Premiums would be based on income.* The logic was that the higher incomes correlated with the smarter people and the smarter people could figure out bigger crimes and were thus a bigger risk. But the Board went a step further and defined "income" as what a person hoped he would make. Knowing that people might not report what they hoped to make if they had to pay premiums based on that, the plan contained provisions for lie detector tests if there were reason to doubt accuracy of the hopes.
3. Premiums would also be based on Risk Factors. These would depend upon a person's neighborhood. Since some neighborhoods had a lot more crime than others, the Board's expensive actuarial consultants argued that a person in a high-crime neighborhood was more likely to commit a crime than a low-crime neighborhood resident. Since there were no statistics available for neighborhood crime frequency in Alyeska and since some neighborhoods had only one or two residents, the actuaries used comparable neighborhoods from Harlem, Belaire, Miles City, and Las Vegas, and set up rate structures for neighborhood risk factors.
4. *Risk Management Engineering.* Recognizing that possession of the tools of crime or the methods of crime or a psychology of violence increased the likelihood of a person committing a crime, the Board ruled that Risk Management Engineers could enter at will anybody's home to search for guns or knives or Schedule II drugs. Possession would, of course, increase the premium. If the TV had Kojak or other crime shows, or football or other violence, the premium would be increased. Because some citizens might resist these Risk Management Procedures, which were for their own benefit, the Engineers were to be allowed to carry rubber truncheons and Mace.
5. The insurance application would require submission of a great deal of personal information for data acquisition which a computer would then later correlate with crime frequency. In addition to addresses, hoped income, possession of guns, knives, TV sets and favorite programs, the application would require information on favorite foods, preferred sex techniques and frequency, children's favorite toys, favorite liquor and estimated consumption, complete health history including VD and psychiatric treatment, etc.

The Board filed the rules with Mr. Crock, then had a meeting with the people to inform them of the rules and that it was now too late to change.

EPILOGUE

The rest is history. When the people discovered what Mandatory Crime Insurance really meant, most rebelled and refused to apply. Lawsuits sprang up against the law. Mr. Notme warned the people that they had to apply or they couldn't work, and that if they did work they would be criminals. Mr. Notme realized that either work would stop or he would have to arrest all the people, so he resigned to go into business. For a while the people were jubilant and felt their rights would be upheld. But it was not to be.

The courts ruled the law constitutional and ordered the people to pay the premiums or go to jail in contempt of court. Some refused, some left, but most paid.

Meanwhile, the real criminals were still robbing and raping and mugging and carrying on. But with Mandatory Crime Insurance it didn't matter much now. Nobody believed rape victims. The mug victim was usually old or useless or drunk. The robberies were always reimbursed so nobody bothered to protect anything, so the robberies increased and increased and people and banks began to fake robberies and split with the criminals all the insurance money. The average premium soon exceeded the average income, and the only income without a premium was from crime.

Crime was survival. Survival was crime. Crock's Credo No. 1 was vindicated. The people cringed. Rubber truncheons and Mace were everywhere. Now Crock's Credo No. 2. The people called Crock's Credos, Crock's Crocks. Back home in Neck, Bluebird mused, "It's poetic justice. They asked us for help and now they're complaining." And that's how it happened.

On an island near Bora Bora, a small intimate group of insurance men sipped iced rum and reminisced far into the tropical night . . . □

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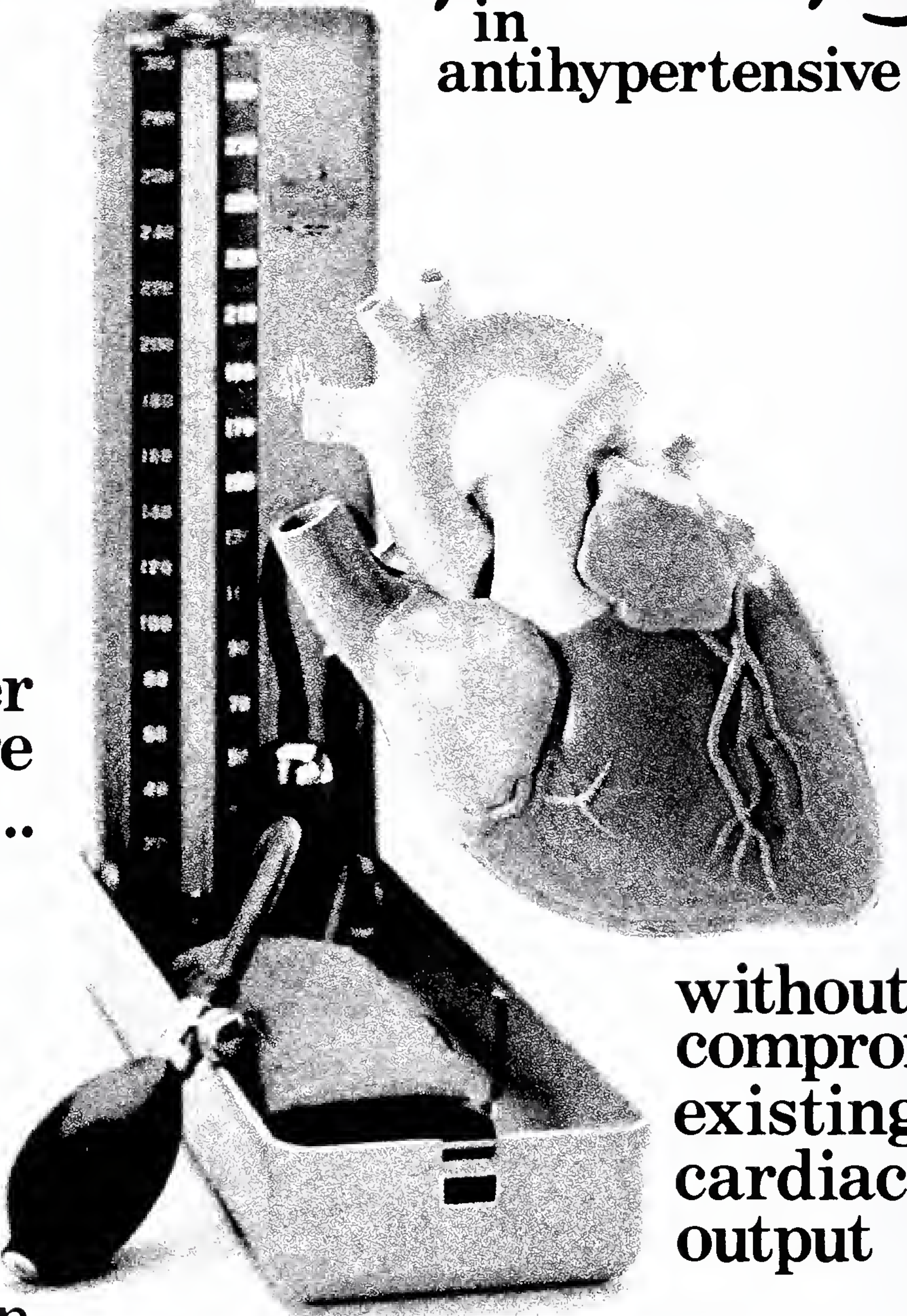

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It is important to recognize that a positive Coombs test, hemolytic anemia, and liver disorders may occur with methyldopa therapy. The rare occurrences of hemolytic anemia or liver disorders could lead to potentially fatal complications unless properly recognized and managed. For more details see the brief summary of prescribing information.

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Varnings: It is important to recognize that a ositive Coombs test, hemolytic anemia, and iver disorders may occur with methyldopa herapy. The rare occurrences of hemolytic nemia or liver disorders could lead to poten-ially fatal complications unless properly recog-ized and managed. Read this section carefully o understand these reactions.

Vith prolonged methyldopa therapy, 10% to 20% of atients develop a positive direct Coombs test, sually between 6 and 12 months of therapy. Lowest ncidence is at daily dosage of 1 g or less. This on are occasions may be associated with hemolytic nemia, which could lead to potentially fatal com-lications. One cannot predict which patients with a ositive direct Coombs test may develop hemolytic nemia. Prior existence or development of a positive irect Coombs test is not in itself a contraindication o use of methyldopa. If a positive Coombs test evelops during methyldopa therapy, determine hether hemolytic anemia exists and whether the ositive Coombs test may be a problem. For exam-le, in addition to a positive direct Coombs test there is less often a positive indirect Coombs test which may interfere with cross matching of blood.

At the start of methyldopa therapy, it is desirable to do a blood count (hematocrit, hemoglobin, or red cell count) for a baseline or to establish whether there is anemia. Periodic blood counts should be done during therapy to detect hemolytic anemia. It may be useful to do a direct Coombs test before therapy and at 6 and 12 months after the start of therapy. If Coombs-positive hemolytic anemia occurs, the cause may be methyldopa and the drug should be discontinued. Usually the anemia remits promptly. If not, corticosteroids may be given and other causes of anemia should be considered. If the hemolytic anemia is related to methyldopa, the drug should not be reinstituted. When methyldopa causes Coombs positivity alone or with hemolytic anemia, the red cell is usually coated with gamma globulin of the IgG (gamma G) class only. The positive Coombs test may not revert to normal until weeks to months after methyldopa is stopped.

Should the need for transfusion arise in a patient receiving methyldopa, both a direct and an indirect Coombs test should be performed on his blood. In the absence of hemolytic anemia, usually only the direct Coombs test will be positive. A positive direct Coombs test alone will not interfere with typing or cross matching. If the indirect Coombs test is also positive, problems may arise in the major cross match and the assistance of a hematologist or transfusion expert will be needed.

Fever has occurred within first 3 weeks of therapy, sometimes with eosinophilia or abnormalities in liver function tests, such as serum alkaline phosphatase, serum transaminases (SGOT, SGPT), bilirubin, cephalin cholesterol flocculation, prothrombin time, and bromsulphalein retention. Jaundice, with or without fever, may occur, with onset usually in the first 2 to 3 months of therapy. In some patients the findings are consistent with those of cholestasis. Rarely fatal hepatic necrosis has been reported. These hepatic changes may represent hypersensitivity reactions; periodic determination of hepatic function should be done particularly during the first 6 to 12 weeks of therapy or whenever an unexplained fever occurs. If fever and abnormalities in liver function tests or jaundice appear, stop therapy with methyldopa. If caused by methyldopa, the temperature and abnormalities in liver function characteristically have reverted to normal when the drug was discontinued. Methyldopa should not be reinstituted in such patients.

Rarely, a reversible reduction of the white blood cell count with primary effect on granulocytes has been seen. Reversible thrombocytopenia has occurred rarely. When used with other antihypertensive drugs, potentiation of antihypertensive effect may occur. Patients should be followed carefully to detect side reactions or unusual manifestations of drug idiosyncrasy.

Use in Pregnancy: Use of any drug in women who are or may become pregnant requires that anticipated benefits be weighed against possible risks; possibility of fetal injury can not be excluded.

Precautions: Should be used with caution in patients with history of previous liver disease or dysfunction (see Warnings). May interfere with measurement of: uric acid by the phosphotungstate method, creatinine by the alkaline picrate method, and SGOT by colorimetric methods. Since methyldopa causes fluorescence in urine samples at the same wavelengths as catecholamines, falsely high levels of urinary catecholamines may be reported. This will interfere with the diagnosis of pheochromocytoma. It is important to recognize this phenomenon before a patient with a possible pheochromocytoma is subjected to surgery. Methyldopa is not recommended for patients with pheochromocytoma. Urine exposed to air after voiding may darken because of breakdown of methyldopa or its metabolites.

Stop drug if involuntary choreoathetotic movements occur in patients with severe bilateral cerebrovascular disease. Patients may require reduced doses of anesthetics; hypotension occurring during anesthesia usually can be controlled with vasopressors. Hypertension has recurred after dialysis in patients on methyldopa because the drug is removed by this procedure.

Adverse Reactions: *Central nervous system:* Sedation, headache, asthenia or weakness, usually early and transient; dizziness, lightheadedness, symptoms of cerebrovascular insufficiency, paresthesias, parkinsonism, Bell's palsy, decreased mental acuity, involuntary choreoathetotic movements; psychic disturbances, including nightmares and reversible mild psychoses or depression.

Cardiovascular: Bradycardia, aggravation of angina pectoris. Orthostatic hypotension (decrease daily dosage). Edema (and weight gain) usually relieved by use of a diuretic. (Discontinue methyldopa if edema progresses or signs of heart failure appear.)

Gastrointestinal: Nausea, vomiting, distention, constipation, flatus, diarrhea, mild dryness of mouth, sore or "black" tongue, pancreatitis, sialadenitis.

Hepatic: Abnormal liver function tests, jaundice, liver disorders.

Hematologic: Positive Coombs test, hemolytic anemia. Leukopenia, granulocytopenia, thrombocytopenia.

Allergic: Drug-related fever, myocarditis.

Other: Nasal stuffiness, rise in BUN, breast enlargement, gynecomastia, lactation, impotence, decreased libido, dermatologic reactions including eczema and lichenoid eruptions, mild arthralgia, myalgia.

Note: Initial adult dosage should be limited to 500 mg daily when given with antihypertensives other than thiazides. Tolerance may occur, usually between second and third month of therapy; increased dosage or adding a thiazide frequently restores effective control. Patients with impaired renal function may respond to smaller doses. Syncope in older patients may be related to increased sensitivity and advanced arteriosclerotic vascular disease; this may be avoided by lower doses.

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ALASKA HEALTH SCIENCES LIBRARY

A Tribute, a Welcome, and a Challenge

Walter Johnson, M.D.

From a humble and inauspicious beginning in 1967, the Alaska Health Sciences Library — or Information Center (AHSIC) — has grown to become a major element in health care in the state. The Alaska Medical Library, as it was called at first, has added much to the satisfaction and quality of medical practice in Alaska, according to the many testimonials we have received.

For many years, the ASMA was acutely aware of the need for a medical library. The Arctic Health Research Center served some of the physicians in Anchorage on a courtesy basis until it moved to Fairbanks in 1967. Alaska, with its small number of scattered physicians, seemed to be in no position to undertake the costly project of starting a library. Medical societies in some of the older cities and states were finding their medical libraries a difficult financial burden to carry. The trend seemed to be to combine these with university or other libraries.

Opportunity to make a beginning came in 1967 when a position of Medical Librarian was created at the Alaska Native Medical Center (ANMC), which had a small collection of books and journals. That same year Regional Medical Program (RMP) funds were made available for use in accord with local preference. The purpose of RMP was to close the gap between what was known and what was being applied in medicine. Mrs. Ursula (Strash) Solom and I drafted an RMP grant proposal for a library which included a commitment to serve all the physicians (and later other health workers) in the state. The proposal was endorsed by the Anchorage Medical Society at their April 18, 1967 meeting. The Alaska Dental Society, the Alaska State Hospital Association, and many others lent their support. Judge Thomas Stewart, then in Anchorage, travelled to Seattle as the lay (nonprovider) member of the local RMP Committee. He helped win the endorsement of the Regional RMP Committee. Later Dr. Fred Hillman effectively represented the Library's interest with the Regional RMP Committee as it struggled into existence.

Although many persons worked to bring locally based medical library services to Alaska, the chief credit for building AHSIC into a viable institution must go to Ursula (Strash) Solom, known to physicians and others throughout the state as "Ursula." She operated a service with only a telephone, a desk, and stacks of books and journals on the floor until equipment could be obtained. She attracted especially dedicated and loyal workers to assist her. As an example, her first assistant worked for three months without pay, out of loyalty and on faith that the grant would come through.

From the beginning, the policy was to provide service and let the Library win support in this manner. Ursula set up the "Table of Contents" service to reach physicians who could not come to the Library — a situation which is true of most physicians, even those in Anchorage, because of busy schedules. Ursula wrote and rewrote further grant proposals both to RMP and the National Library of Medicine (NLM). Year after year the accomplishments were evaluated and support continued. She patiently and effectively informed and gained the support of state legislators. This resulted in adoption of the library by the Division of State Libraries and a

---

Walter Johnson, M.D., Clinical Director, Community Health Aide Program, Alaska Area Native Health Service, Box 7-741, Anchorage, Alaska 99510.

Left to right: Jack O'Bar, Director, University of Alaska, Anchorage, Library; Ursula Solom, former Director, Alaska Health Sciences Library and Stanley Truelson, Director, Alaska Health Sciences Library.

place for it in the state budget.

As had been anticipated, once responsive services were available, support and usage grew. It was not long before 85 percent of the physicians in the state were making some use of the Library. Staff expanded and capabilities increased with closer relationships to the Regional Medical Library at Seattle and National Library of Medicine in Bethesda, Maryland.

In 1972, Ursula's chief assistant, Pat Yenney, was sent out for instruction in use of the computer terminal which had been installed. MEDLINE has since become one of the most frequently used services.

On August 10, 1976, Ursula, for reasons of health, was forced to resign. During her nine years as director she had taken the Library through the critical stage of its early development.

At this juncture we were concerned, because the Library had become very dependent on Ursula as an individual. But again good fortune came our way, when the Librarian of the Yale Medical Library applied for the position as Medical Librarian and Director of AHSIC.

The new director, Stanley Truelson, is well qualified to see the Library through its next stage of development. Mr. Truelson has an A.B.

(major in English Literature) and M.A.T. (Master in Arts in Teaching) from Harvard University and an M.S. degree in library science from Simmons College. He has held a number of responsible medical library positions in New York and New England. For the past 10 years he was Librarian of the Yale Medical Library. His broad work experience and extensive publications suggest that he is amply qualified to lead the rather complex organization which the Alaska Health Sciences Library has become.

From the beginning it was never envisioned that a state medical library would be permanently located at ANMC. Initially, it was a logical place because the Indian Health Service did have a medical librarian, some space, and a small collection of materials. But the operation has for some time now outgrown the space available at ANMC. Over the years the Advisory Committee has looked at options for moving to a site that would allow expansion.

Recently, with the new emphasis on health sciences at the University of Alaska, Anchorage, and availability of space in the new Consortium Library Building, an opportunity to move was presented. Agreement to the move was formalized in late 1976 by the State Commissioner of Education, the Director of the Alaska Area Native Health Service, and the Chancellor of the University of Alaska, Anchorage.

In its new location, the Library can continue to serve the needs of health professionals as well as the expanding university teaching programs in health careers. This move not only will provide acutely needed space in a state facility designed to be used as a library, but will prevent costly duplication. It is felt that this combining of resources will provide more complete services to all at a reduced cost to the state.

There has been some concern among physicians that the move might over a period of time result in a de-emphasis on service to professionals. In an attempt to guard against this, the Alaska Health Sciences Library will continue as an entity separate from the university, with a primary commitment to serve practitioners. As a separate entity, the Library can continue to receive support from the Alaska Area Native Health Service and the Division of State Libraries, with added support from the university. The Division of State Libraries, presently under the direction of Mr. Richard Engen, eventually will assume overall responsibility and direction. An Advisory Board with ample representation from among physicians and other health professionals will assure that the Library does not stray from its initial and continuing goal — serving those who treat patients.

Since the opportunity to move to a new location came sooner than anticipated, funds to cover the move were not in the current budgets of the three contributors. The move had been anticipated as occurring after July 1977. For this reason we are asking users and others, both as individuals and groups, for contributions to the Library.

In contrast to many areas where charges are made for MEDLINE searches and photocopying, the Library has offered these services to Alaska without charge. The rationale is that the ultimate benefit goes to the patient. We all hope that free service can continue; however, contributions not only will be helpful in the current move, but will add to the quality of the Library if sustained.

Many of you have made unsolicited gifts to the Library in the past. Additional contributions are most welcome now to cover the costs of the move and expanding services. Mr. Stanley Truelson, the director, can give you more details on what the contributions will be used for if you wish to call him. Checks should be made out to the Alaska Hospital Research and Education Foundation, Inc., which has the IRS number to assure that the contribution may be claimed as a tax deduction. Checks may be mailed either to the Library or to the Alaska State Hospital Association, 5531 Arctic Blvd. No. 1, Anchorage 99502. In any case, money in this fund will be used exclusively for the Library.

Dr. Martin Cummings, director of the National Library of Medicine, frequently has referred to the Alaska Health Sciences Library as one of the most innovative and responsive in the nation. The Library has enjoyed excellent support from physicians, dentists, other health professionals, and legislators in the past. We look forward to your continued support and to a truly excellent library that enhances the quality and satisfaction of the practice of medicine in Alaska.

We give tribute to Ursula Solom for her many years of dedicated service in bringing the Library to where it is today. A welcome is extended to Stan Truelson; we wish him success and satisfaction in continuing and expanding the service. □

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Note: Carefully coordinate *in vitro* sulfonamide sensitivity tests with bacteriologic and clinical response; add aminobenzoic acid to follow-up culture media. The increasing frequency of resistant organisms limits the usefulness of antibacterials including sulfonamides. Measure sulfonamide blood levels as variations may occur; 20 mg/100 ml should be maximum total level.

Contraindications: Children below age 12; sulfonamide hypersensitivity; pregnancy at term and during nursing period; because Azo Gantanol contains phenazopyridine hydrochloride it is contraindicated in glomerulonephritis, severe hepatitis, uremia, and pyelonephritis of pregnancy with G.I. disturbances.

Warnings: Safety during pregnancy not established. Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been reported and early clinical signs (sore throat, fever, pallor, purpura or jaundice) may indicate serious blood disorders. Frequent CBC and urinalysis with microscopic examination are recommended during sulfonamide therapy.

Precautions: Use cautiously in patients with impaired renal or hepatic function, severe allergy, bronchial asthma; in glucose-6-phosphate dehydrogenase-deficient individuals in whom dose-related hemolysis may occur. Maintain adequate fluid intake to prevent crystalluria and stone formation.

Adverse Reactions: *Blood dyscrasias* (agranulocytosis, aplastic anemia, thrombocytopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia); *allergic reactions* (erythema multiforme, skin eruptions, Stevens-Johnson syndrome, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis); *G.I. reactions* (nausea, emesis, abdominal pains, hepatitis, diarrhea, anorexia, pancreatitis and stomatitis); *CNS reactions* (headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo and insomnia); *miscellaneous reactions* (drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon). Due to certain chemical similarities with some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia. Cross-sensitivity with these agents may exist.

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Precautions: Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics, or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spironolactone is used concomitantly, determine serum K$^+$ frequently; both can cause K$^+$ retention and elevated serum K$^+$. Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded, in the other serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving Dyrenium® (triamterene, SK&F Co.), and leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with thiazides. Do periodic blood studies in cirrhotics to check for nondrug-related variations in blood pictures, and in patients with folic acid depletion, since 'Dyrenium' may contribute to appearance of megaloblastosis. Antihypertensive effect may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine.

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REPORT OF THE ADVISORY COMMITTEE TO THE DEPARTMENT OF HEALTH AND SOCIAL SERVICES REGARDING MEDICAL CARE IN THE ANCHORAGE CORRECTIONAL INSTITUTIONS

Joseph D. Bloom, M.D.
Herbert H. James, M.D.
Kenneth S. Laufer, M.D.

(The following report is submitted from the Anchorage Medical Society for your interest. We did not make any attempt to obtain information regarding medical care in the various correctional institutions around the state. We would urge the component medical associations to look into this situation in their own geographic areas. As indicated in the body of this report the American Medical Association and the various state medical associations may become involved in the certification of the adequacy of medical care in correctional institutions of all types. Documents listed as part of the appendix to this report are available from the office of the Anchorage Medical Society.)

In early summer of 1976 the Anchorage Medical Society passed a motion to the effect that the Society should offer its services to the Commissioner of Health and Social Services for the purpose of making a study of the medical needs of the jail correctional system in Anchorage and to make recommendations to the Commissioner on how such medical care might best be delivered. The Committee consisted of Drs. Herbert James, Ken Laufer, and Joseph Bloom, as chairman of the committee. In a letter dated July 20, 1976, Lois Jund, Deputy Commissioner for Program Management of the Department of Health and Social Services, accepted the advisory role of the committee and designated Deputy Commissioner Frederick McGinnis and Mr. Herb Maschner as Anchorage contact persons. Mr. Maschner in turn designated Mr. Robert Van Winkle to be the representative of his staff working with the committee.

Beginning in Sept. 1976, the committee met with Dr. McGinnis and Mr. Van Winkle. In addition, we met with representatives of the four correctional centers in the Anchorage area and on another occasion visited each of these facilities to familiarize ourselves both with the institution and specifically with the medical care facilities available within the institutions. In addition we wrote to the American Medical Association for possible guidance in our work. We were surprised to find that the AMA had appointed an advisory committee to produce standards for health care in jails. Although their material was not finalized they supplied us with copies of working documents which will be reviewed in the body of this report and appended for more detailed consideration.

One caution should be noted in the reading of this report, because of the various work schedules, travels, and the need to devote energy to other medical priorities the committee did not cover the field of study as vigorously as they had hoped. Second, there has been considerable interest on the part of the State Department of Health and Social Services in the current crises within the medical system in the Anchorage correctional facilities. To this end we decided to submit our report with the caution that we might have made some errors in reporting.

We should also state at this point that we received absolute cooperation from all members of the Department of Health and Social Services in helping to set up our schedule, and in supplying us with requested information.

CURRENT SITUATION

The current medical care system in the Anchorage correctional facilities came about as a result of a crisis situation involving the termination of the contract of the previous chief medical officer. The contract was terminated following the death of an inmate in the facility. Although we made no attempt to investigate the issues involved in the termination, the fact of the termination has importance in the analysis of the present situation.

It should be clearly stated from the beginning that there was almost universal agreement amongst the people with whom we spoke that the current system is not working. The current system includes three elements: one full-time physician assistant hired by the Division of Corrections; several part-time physician assistants; and two part-time physicians who are Army physicians and who cover the correction institutions during their off-

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Dr. Bloom is a physician in private practice at 340 E. 42nd Avenue, Anchorage, Alaska 99504; Dr. James is a general sugeon in private practice at 207 E. Northern Lights Blvd., Anchorage, Alaska 99503; Dr. Laufer is in family practice at 2211 E. Northern Lights Blvd., Anchorage, Alaska 99504.

duty hours. The problems with this type of system are obvious. There is very poor coordination among elements in the whole system. The use of military physicians to cover the very active Anchorage institutions may have served as a stopgap measure but has little long-term viability.

The previous system developed by the Division of Corrections and the contract physician deserves some comment because it received almost universally favorable comment from the line personnel within the Division. As we understand it the system was based on a combination of physician, and physician assistant care. The physician assistants were employed by the physician, and were directly under his supervision. Each institution had regularly scheduled visits by both the physician and the physician assistants. In addition, there were personnel on 24-hour call for medical emergencies. The physician, being a member of the private medical community held hospital privileges, and took care of those offenders needing acute hospital care. He also was responsible for referrals to specialists when in his opinion the patient-inmate was in need of such services. He developed working relationships with the various medical specialists in the community, and used the services of those with whom he could comfortably work. There are many advantages to this type of medical care system which will be discussed below, under recommendations.

FACILITIES

The correctional institutions in the Anchorage area provide dramatic contrasts in the adequacy of their medical capability. Two, Eagle River and MYC, are modern facilities with excellent medical areas. Eagle River is the best equipped of the four institutions and includes a unit for medical isolation with a small number of medical beds. The Third Avenue facility is medically inadequate containing only the smallest amount of space for the examination of patients. Space which, in the past, had been used for medical purposes, has recently been converted into an administrative office (which in itself is not lavish). Third Avenue is not regarded by the committee as a medical hazard area, only because it houses a small number of inmates, all of whom have been previously screened through the system and who are likely to have small numbers of medical needs.

The Sixth Avenue facility represents to the committee a definite hazard from the medical point of view. As the official receiving institution for the Anchorage area it receives large numbers of new admissions into an overcrowded and generally outmoded facility. The inmate population in this acute care facility could be expected to have the largest number of both physical and emotional problems. As has been seen from the past, the people incarcerated often have acute medical/psychiatric problems. The medical area in the institution is totally inadequate, and made more so by the type of population served. There is no space for adequate examination of incoming persons. In addition to the difficulties in practice of adequate curative medicine the facility poses an imminent public health hazard. Because of the extremely confined space for inmates the institution is vulnerable to acute infectious diseases which could spread through one of the three main units in very short order. The levels of emotional distress and symptomatology could be expected to be quite high because of the stress associated with admission, but made worse by overcrowding and total lack of privacy. Homosexual fears could be expected to be high, with very high levels of manifest anxiety and psychosomatic complaints. There is virtually no program of physical exercise, and no adequate area for consultation with visitors, attorneys, or other outside professionals. Levels of frustration seemed very high in patients and staff. In addition, this same facility houses sentenced women prisoners with an average 90-day sentence. The same lack of privacy and limited sanitary facilities apply for the women's residence. Pregnancies are not uncommon in this population, and diet, lack of exercise and limited restful surroundings take their toll on the health of mother.

American Medical Association Guidelines: Recently the AMA received a grant from the LEAA for the development of a nationwide program, initially focused in six states, for the delivery and improvement of critically needed medical care and health services in correctional institutions. A major goal of the project is the development of tested and replicable models for health care delivery to varying-sized jails. The final product of the project will be the institution of a national certification system whereby health services for inmates of jails will be regularly appraised against standards and guidelines approved by the AMA, the American Correctional Association and the National Sheriffs' Association. It is expected that the state medical associations will be responsible for conducting the certification process. Although the project has not completed its work we felt it important to attach the following documents as an appendix to our report:

1. *Tentative Pre-Tested Standards for Medical Care and Health Services in Jail:* Although in rough form this document does provide a complete set of standards for the correctional institutions including environmental health, exercise and social issues.
2. *Models for Health Care Delivery in Jails:* This document provides a list of alternative models for delivery services from the totally state-hired medical staff to the various alternatives available through contracting with private individuals and clinics.
3. *The Use of Allied Health Personnel in Jails:* This document describes various types of allied medical personnel and their potential within the correctional system.
4. *The Role of State and Local Medical Society Jail Advisory Committees:* This document is included for consideration by the Department of Health and Social Services especially in the area of public pressure on the legislative branch, for the appropriation of funds, to relieve the problems described above with certain of the facilities.

RECOMMENDATIONS

1. The current medical care system should continue only as long as it takes to find a better alternative. This does not detract from the efforts of the two military physicians whose efforts in the interim period are certainly appreciated.
2. The Department should attempt to negotiate with a private physician and/or group of physicians to undertake the medical care within the four Anchorage institutions on a contract basis. The contract should allow for the hiring by the physician, of the appropriate number of physician assistants to cover the institutions. The physician or the group would be responsible for emergency medical care, for 24-hour coverage and for the use of specialty services where appropriate.

Alternative: Consideration was given to the state-employed physician as opposed to the contract physician. The major advantage of this system might be in the area of dollar savings to the state. However, we felt that the private physician had the advantage of being involved in the total medical community, had the opportunity for a varied type of practice and had the potential, if in a group practice, of getting adequate backup coverage.

Alternative: Another alternative worth considering is to split the MYC from the adult institutions. MYC has a different population with different population needs. It could easily be handled by a contract with an individual or group who could then work with the nurses currently employed by the institution. It would also then tend to differentiate the needs of adults and adolescents. The main fear of the committee being that the needs of the children are lost in the overwhelming problems of the adult institutions.

3. As a result of the termination of the previous contract physician it should be recognized that the private medical community can be expected to be quite sensitive in future negotiations with the Department. To insure against possible arbitrary contract termination we would recommend that adequate peer review mechanisms could be negotiated, if desired, with the local or state medical society. This mechanism should be part of the proposed contract. Some provision along this line is extremely important especially given the conditions in the Sixth Avenue institution where it is extremely difficult at this time to practice good medicine.
4. The Sixth Avenue facility should be declared a general as well as health hazard. Immediate attempts should be made to relieve overcrowding, and to find some immediate alternative to receive some of the population presently housed in the institution. In addition, plans should be developed immediately to expand and improve the available medical facility within the institution. If new construction and funding are needed this should immediately be pursued.
5. The medical facility in the Eagle River institution is not being sufficiently utilized for patient-inmates from the other two adult institutions. While the obvious crisis exists at Sixth Avenue, patients who might have been returned from a hospital to Sixth Avenue could go to Eagle River. In addition, we suspect that a properly staffed facility at Eagle River could cut down on the expenses involved in hospitalization in the Anchorage general hospitals.
6. We would recommend that the Department attempt to stimulate public interest in the upgrading of the two older Anchorage facilities. One possible method would be the formation of a citizen's advisory group to the four institutions.
7. Continuation of a standing committee of the medical association to work with the Department is possible, if desired.

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DELEGATE REPORT OF THE CLINICAL CONVENTION OF THE AMERICAN MEDICAL ASSOCIATION

To my fellow Alaskan physicians:

It was a pleasure to again be able to attend the Clinical Convention of the American Medical Association held in Philadelphia, this last December. Philadelphia is a charming city and one of our older ones as you know, and during this meeting the weather was kind. Your delegate had to serve on one of the committees (Committee A) of the House of Delegates, and as a result, listen to testimony and participated in writing up a report on this testimony for final submittal to the House of Delegates. As a result, I did not have an opportunity to enjoy any of the historic pleasures of Philadelphia. Having been there as your delegate approximately 12 years ago, I had some opportunity to see the historic monuments and documents that that city houses in relation to our national history. I don't suppose the history has changed in 12 years, so probably did not miss anything by having to be a hard working member of the House of Delegates during this session.

It was very helpful to have the assistance of the alternate delegate, Dr. J. Ray Langdon, and the wisdom of Dr. Whaley and Dr. Lundquist to help me with my deliberations in the House. I might note that this is the first time in 16 years that Alaska has been as well represented at an A.M.A. policy-making session.

At the 30th Clinical Convention in Philadelphia, the House of Delegates had to listen to testimony and then review and pass on over 125 resolutions and some 80 to 90 reports from the Board of Trustees and various councils and committees that had been established by the American Medical Association.

Among pertinent things that were passed on at this last session, in my opinion, were the establishment of a section on medical schools. Membership in this new section consists of a dean from each approved medical school and three members of each administration or faculty who will be appointed by the dean. All of these members of the new section must be active A.M.A. members. Hopefully, this will allow better liaison between the teaching members of the A.M.A. and the actual practicing members of the A.M.A. I feel this is probably a step in the right direction which will allow the medical schools a chance to evaluate the needs of the practicing physicians more closely than they have been able to do in the past. It also serves as a media whereby the Council on Medical Education can confer more closely with the deans of the medical schools who are teaching the new physicians.

One of the most exciting things that has happened in the last two years is the turnaround in the A.M.A. financial picture. Since the increase in dues in 1975, the A.M.A. has been able to set aside $18,700,000 in 1976, and will probably be able to come up with a favorable balance of about $11.5 million in 1977. This will help to build the A.M.A. reserve fund goal of 60% of the operating budget that was set by the House when it raised the dues in 1975. This 60% structure had been advised by the A.M.A. financial consultants and the auditors. As you probably remember, there was a deficit of $146,000 in 1975 and the A.M.A. reserves had gone from something like $22 million down to a negative figure. Much of this, I feel, is due to the executive expertise of Dr. Jim Sammons, your Executive Vice-President of the American Medical Association. In the past year alone, he has managed to keep operating expenses about $3.9 million under the budget. In the past two years some of these services provided by the A.M.A. have been curtailed; however, with the more rosy financial picture I expect to see most of these reinstated in the next two to three years.

The Board of Trustees again requested that there be unified membership in the state societies. Alaska had this for many years and we voted it down several years ago. This would mean that anyone who belonged to the state medical association had to belong to the American Medical Association. This request was turned down again but was to be restudied by several states in the near future. There are now approximately 50,000 physicians who accept the benefits of state and county membership but refuse to support what the A.M.A. does to fight their battles on a national level.

The House reaffirmed the stand of the A.M.A. Board of Trustees at a national level calling for strict implementations of the law against all acts of fraud and wrongdoing as recently reported under the Medicare, Medicaid programs. However, the House of Delegates also added that the A.M.A. will continue to protest vigorously improper and undocumented allegations of fraud and abuse made against physicians by government officials, agencies, or the news media.

Probably the most controversial subject to come before the House of Delegates at this time, was whether or not the American Medical Association should reintroduce a National Health Insurance Bill in their 95th Congress. After long debate, the House of Delegates did approve a Board of Trustees report recommending a bill similar to the A.M.A.'s Comprehensive National Health Insurance proposal in 94th Congress based on A.M.A. National Health Insurance principles which have been developed since 1968. It was pointed out that HR6222 has provided a vehicle through which the association could actively participate in a realistic formulization of National Health Insurance policies, and that to change that support could result in diminishing the American Medical Association's voice in any further development of National Health Insurance. This position was supported strongly by the Council on Medical Services, Council on Legislation, and the New England Delegation, also by the representatives from Medical Student Business session and the resident physician section. This position was opposed by delegations from Louisiana, Nebraska, New Mexico, and South Carolina. However, the final vote, when it came to the floor of the House, was 181 in favor of presenting a new bill to the congress and 57 against. Your delegate was advised by the representatives with him from Anchorage that the Anchorage physicians of the most part were against any introduction of an A.M.A. Health Insurance Legislation.

After having been present in the House of Delegates, representing the state of Alaska during the years of 1962 through 1965, when the American Medical Association vigorously opposed the Medicare Bill, I felt that probably it was well to be on the positive side rather than the negative side. As many of you will remember, the American Medical Association was severely criticized by the press, by the unions, and by everyone else for its negative attitude toward Medicare. At that time, by the time we submitted a proposal to Congress, it was too late and we had no voice in what the Medicare Bill, as it stands today, would be. I still feel that a positive posture in this particular battle toward National Health Insurance should be maintained and I feel that it gives us a strong hand from which to deal.

Dr. Richard Palmer, who is the President of the American Medical Association, urged some type of A.M.A.-sponsored national health legislation in his opening speech to the House of Delegates. He felt that if we did not have anything to present in the way of national health insurance that we run the terrible risk of getting clobbered with everything. Everything, of course, could be a Kennedy-Corman Labor Bill all at once or blow by blow.

The 30th Clinical Convention in Philadelphia was the last A.M.A. session under that name. In the future, the House of Delegates will hold interim meetings in Chicago each December, and a winter scientific program which will be held at approximately the same time in another city. Physician registration of the 30th Clinical Convention was only 2,800, although more than 6,000 physicians had preregistered. The total registration in Philadelphia was a little over 5,000. I personally feel that the poor attendance of physicians at the clinical meeting is due to the expansion of medicine into various specialty fields. It is obvious that most physicians nowadays prefer to get their continuing education and postgraduate education at meetings of their own specialty societies. The A.M.A. is researching ways to be able to accommodate the specialty societies in a more reasonable and logical fashion in its own scientific meetings.

It was a pleasure to serve you again as your delegate and I would certainly encourage any letters or phone calls regarding actions of the House of Delegates to the recent clinical convention.

Respectfully submitted,
Joseph M. Ribar, M.D.

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NORTHERN HIGHLIGHTS — 27

SELECTED ABSTRACTS ON MEDICINE AND PUBLIC HEALTH IN THE NORTH

Ophthalmology

Morgan, R. W.; Speakman, J. S.; Grimshaw, S. E.

Inuit myopia: an environmentally induced "epidemic"? *Can. Med. Assoc. J. 112:* 575-577, 1975.

This paper studies the relationship between myopia and factors such as genetics, growth and development, and environment among two groups of Canadian Eskimos. The authors are with the University of Toronto.

Two isolated Arctic communities, namely Gjoa Haven and Spence Bay, were selected for the study. A screening team first identified all persons with myopia, using an illiterate E chart with pinhole correction and a visual acuity of 20/40 or worse, improved by the pinhole. All presumed myopes between 15 and 30 years of age were interviewed and a pedigree constructed. Heights and weights were also ascertained. Following this screening, an ophthalmologist examined all persons with a visual problem, using pupillary dilatation and retinoscopy. Survey data were supplemented by clinical records wherever possible.

Myopia was significantly more prevalent among the young of both sexes, but the proportion of myopes was greater among females. The parental frequency of myopia exceeded the expected frequency with a significance between 0.05 and 0.1

No height or weight differences were noted between myopes and non-myopes for either sex or age group. Myopes, however, were found to attend school more regularly than non-myopes (p 0.05).

The prevalence of myopia is thought by the authors to reflect exposure to a common environmental factor. The higher prevalence among females, especially, suggests a post-natal influence, possibly their more frequent attendance at school. The myope, further, would appear to be a product of schooling, rather than one attracted to schooling because of incompetence in hunting or in other activities requiring distant vision.

Woodruff, M. E.; Samek, M. J.

The refractive status of Belcher Island Eskimos. *Can. J. Public Health 67:* 314-320, 1976.

This paper analyzes the epidemiology of refractive error among the Eskimos of Belcher Island, an isolated, traditional community some 2,000 miles north of Toronto. The authors are with the School of Optometry, University of Waterloo, Ontario.

Data were collected in July 1971, when an eye care team visited the community. A total of 138 persons, or 76.6 percent of the population, were examined. Nonrefractive eye problems were evaluated by an ophthalmology resident in the screening group.

The population showed a remarkably low prevalence of astigmatism, with only two individuals needing a correction of 2 diopters or more. Some 83.2 percent of those examined had no astigmatism.

The mean corneal power for the group was 43.73 diopters, with a S.D. of ± 1.74, a value very close to that reported for a sample of Caucasian children, and somewhat higher than that reported for adults.

Only 23.7 percent of the population were myopic, but 16.8 percent had myopia of less than 1 diopter. Another 32.7 percent of the group had hypermetropia. The mean spherical equivalent refractive state was + 0.53, with a S.D. of ± 0.85 diopters. Only 6.9 percent had myopia between 2.00 and 3.00 diopters, and none had more than 3.00. Somewhat unexpectedly, the females had a mean spherical equivalent refraction of + 0.70 (± 0.82) compared with a value of + 0.35 (± 0.81) for the males.

The majority of Belcher Island Eskimos had uncorrected acuity of 20/30 or better by the Snellen test. These findings are contrary to those of many other Eskimo communities, and are possibly due to the relatively minor influence of Canadian society at large in this area of the Arctic.

Smith, R. E.; Dippe, D. W.; Miller, S. D.

Phlyctenular keratoconjunctivitis: results of penetrating keratoplasty in Alaskan Natives. *Ophthalmic Surg. 6:* 62-66, 1975.

This paper summarizes the results of corneal transplantation for PKC at the Alaska Native Medical Center in Anchorage.

All cases of penetrating keratoplasty at ANMC between 1961 and 1974 were reviewed and 18 met the criteria established for this study, namely: (1) diagnosis of PKC; (2) absence of other eye disease; (3) no previous intraocular surgery; (4) a positive PPD; (5) a negative serologic test for syphilis; and (6) a followup of at least six months.

Age of patients ranged from 14 to 77, with a mean of 42.5. There were 16 females and two males in the series. Thirteen cases had a visual acuity of worse than 20/200 at the time of surgery. Best corrected vision postoperatively ranged from light perception (due to cataracts) to 20/20. Six patients with vision of 20/200 or worse included three with graft failure and three with dense cataracts, which were later removed. Twelve of the 14 with clear grafts had visual improvement of at least two lines on the Snellen chart.

Ten of the grafts were performed by one of the present authors. Donor material was often questionable and usually obtained at least 30 hours postmortem.

Twelve transplants were carried out using 10-0 monofilament nylon and of these 11, or 92 percent, remained clear. Of the failures, one had a typical graft rejection 36 months after surgery. Two grafts never cleared after surgery and one had a history of wound leak and secondary glaucoma.

Newer techniques, better donor material, and the use of finer suture material seem to be positive factors boding well for future surgery of this kind.

Johnson, G. J.; Ghosh, M.

Labrador keratopathy: clinical and pathological findings. *Can. J. Ophthal. 10:* 119-135, 1975.

This paper describes the clinical and histological characteristics of so-called Labrador keratopathy, a bilateral corneal degeneration seen very frequently in the Eskimos, Indians, and white settlers of northern Newfoundland and Labrador.

These studies were carried out as an adjunct to the routine eye clinics of the International Grenfell Association. For every patient over 40 a special card was prepared describing the findings. Corneal tissue was obtained by autopsy, or as a by-product of surgery for other eye conditions, from five patients and examined both by light and electron microscopy.

The condition begins as a grey haze in the superficial cornea, close to the nasal or temporal limbus and is seen only in the exposed areas between the lids. With low magnification, it appears like the condensation of moisture on glass. The lesion is actually composed of small subepithelial droplets. Four grades of the disease have been identified, from the situation in which only two strips of cornea are involved at the margins (Grade I) to a condition in which the whole cornea is clouded and brownish nodules are identified in the central cornea (Grade IV).

Incidence has been studied from the records of 812 consecutive patients over 40 seen in eye clinics. The overall prevalence in men was 56 percent and in women 16 percent. The condition became more prevalent as the latitude increased. At equivalent latitudes, Eskimos, Indian, and whites appeared to be equally affected.

There seems to be no doubt that the condition is caused by exposure to some climatic factor. The severity is clearly related to the degree of exposure to the outdoors. The extent of involvement of four men with varying degrees of blepharoptosis was confined to the exposed area of cornea.

Pathologically, the lesions consisted of characteristic globules of varying size, mainly in Bowman's layer. Stains for iron and calcium were negative, but the globules were completely structureless.

This condition, or a similar one, has been described in other parts of the world. The high incidence and uniformity of clinical appearance in Labrador, however, suggests a specific etiological factor in this part of the world.

Pearce, W.G.; Nigam, S.; Mielke, B.; Wyatt, H. T.

Conjunctival papillomas in northern Canadian natives. *Can. Med. Assoc. J. 112:* 1423-1427, 1975.

This paper describes the apparent high incidence of conjunctival papillomas seen among the Eskimos and Indians of western Canada. The authors are with the Charles Camsell Hospital and the University of Alberta Hospital in Edmonton.

Conjunctival papillomas generally occur in children and young adults and are benign tumors caused by various papova viruses. Over a four-year period the authors examined two Indians and five Eskimos with this condition and were led to suspect that the incidence of these tumors might be higher in the Native people of the north.

Clinically, the tumors usually produced soreness, irritation, and a slight discharge, especially when they were located on the caruncle. In this location they often had a raspberry-like appearance. Pathologically, there was a transitional zone which showed considerable mitotic activity. In one specimen submitted for electron microscopy, no virus particles were seen.

The authors then attempted to develop incidence rates based on several doubtful assumptions of population. To the extent these figures could be trusted, it appeared that the Eskimos had an unusually high incidence of the condition. The small numbers and probably incomplete reporting precluded a more accurate assessment.

Alsbirk, P. H.

Anterior chamber depth in Greenland Eskimos. I. A population study of variation with age and sex. *Acta Ophthal. 52:* 551-564, 1974.

This paper discusses the results of a survey of anterior-chamber depth (ACD) among the Greenlanders of Umanaq. The study was undertaken because of the known high prevalence of narrow-angle glaucoma in this population. The author is with the Health Service, Umanaq, Greenland, and affiliated with the University of Odense, Denmark.

A total of 928 Greenlanders, some 98 percent of those eligible, were studied with a slit lamp and pachymeter. ACD in the two eyes were found to be highly correlated. Correlation with age showed that in children, both sexes displayed a positive and highly significant regression coefficient. In adults, however, the reduction of ACD with increasing age was very pronounced at a relatively early age and continued at the rate of approximately 0.15 mm/decade. The shallowness of the anterior chamber was definitely and significantly more pronounced in adult females.

Robert Fortuine, M.D.

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0-day Bactrim therapy outperforms 10-day ampicillin therapy.

a multicenter, double-blind study of patients with ronic or frequently recurrent urinary tract infection, actrim 10-day therapy outperformed ampicillin)-day therapy by 27.2%, when comparing patients no maintained clear cultures for eight weeks. iterion for "clear culture" was 1000 or fewer organ-ns/ml of urine.

While adverse reactions noted in this study were ld (*e.g.*, vomiting, nausea, rash), more serious reac-ns can occur with these drugs. See manufacturer's oduct information for complete listing. Maintain lequate fluid intake; perform frequent CBC's and inalyses with microscopic examination.

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OTE: The increasing frequency of resistant organisms limits the use-lness of antibacterials, especially in these urinary tract infections. ie recommended quantitative disc susceptibility method (*Federal egister*, 37:20527-20529, 1972) may be used to estimate bacterial sceptibility to Bactrim. A laboratory report of "Susceptible to tri-ethoprim-sulfamethoxazole" indicates an infection likely to respond Bactrim therapy. If infection is confined to the urine, "Intermedi-e susceptibility" also indicates a likely response. "Resistant" indi-ites that response is unlikely.

ntraindications: Hypersensitivity to trimethoprim or sulfonamides; egnancy; nursing mothers.

arnings: Deaths from hypersensitivity reactions, agranulocytosis, plastic anemia and other blood dyscrasias have been associated th sulfonamides. Experience with trimethoprim is much more nited but occasional interference with hematopoiesis has been re-rted as well as an increased incidence of thrombopenia with pur-ra in elderly patients on certain diuretics, primarily thiazides. re throat, fever, pallor, purpura or jaundice may be early signs of rious blood disorders. Frequent CBC's are recommended; therapy ould be discontinued if a significantly reduced count of any formed ood element is noted. **Data are insufficient to recommend use in in-nts and children under 12.**

ecautions: Use cautiously in patients with impaired renal or hepatic nction, possible folate deficiency, severe allergy or bronchial thma. In patients with glucose-6-phosphate dehydrogenase defi-ency, hemolysis, frequently dose-related, may occur. During ther-y, maintain adequate fluid intake and perform frequent urinalyses, th careful microscopic examination, and renal function tests, par-cularly where there is impaired renal function.

lverse Reactions: All major reactions to sulfonamides and trimeth-rim are included, even if not reported with Bactrim. *Blood dys-asias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, rombopenia, leukopenia, hemolytic anemia, purpura, hypopro-rombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

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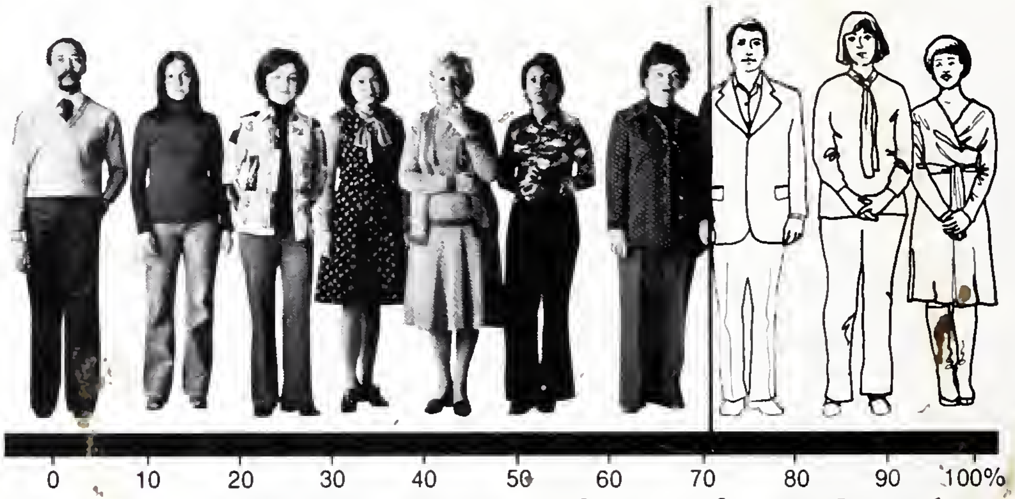

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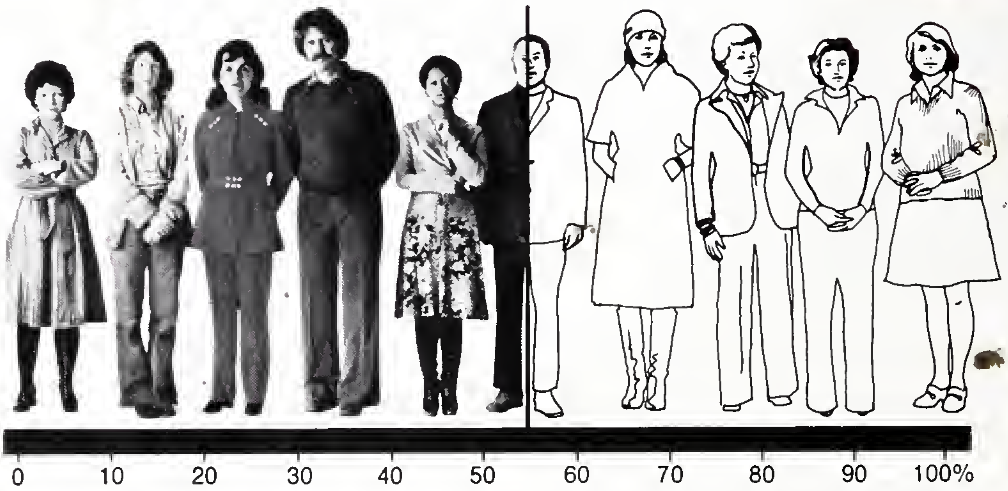

ampicillin–55.4% of 74 patients infection-free at 8 weeks.

*This percentage is arrived at by the statistical method of dividing the difference between Bactrim and ampicillin results (15.1%) by the percent of ampicillin results (55.4%).

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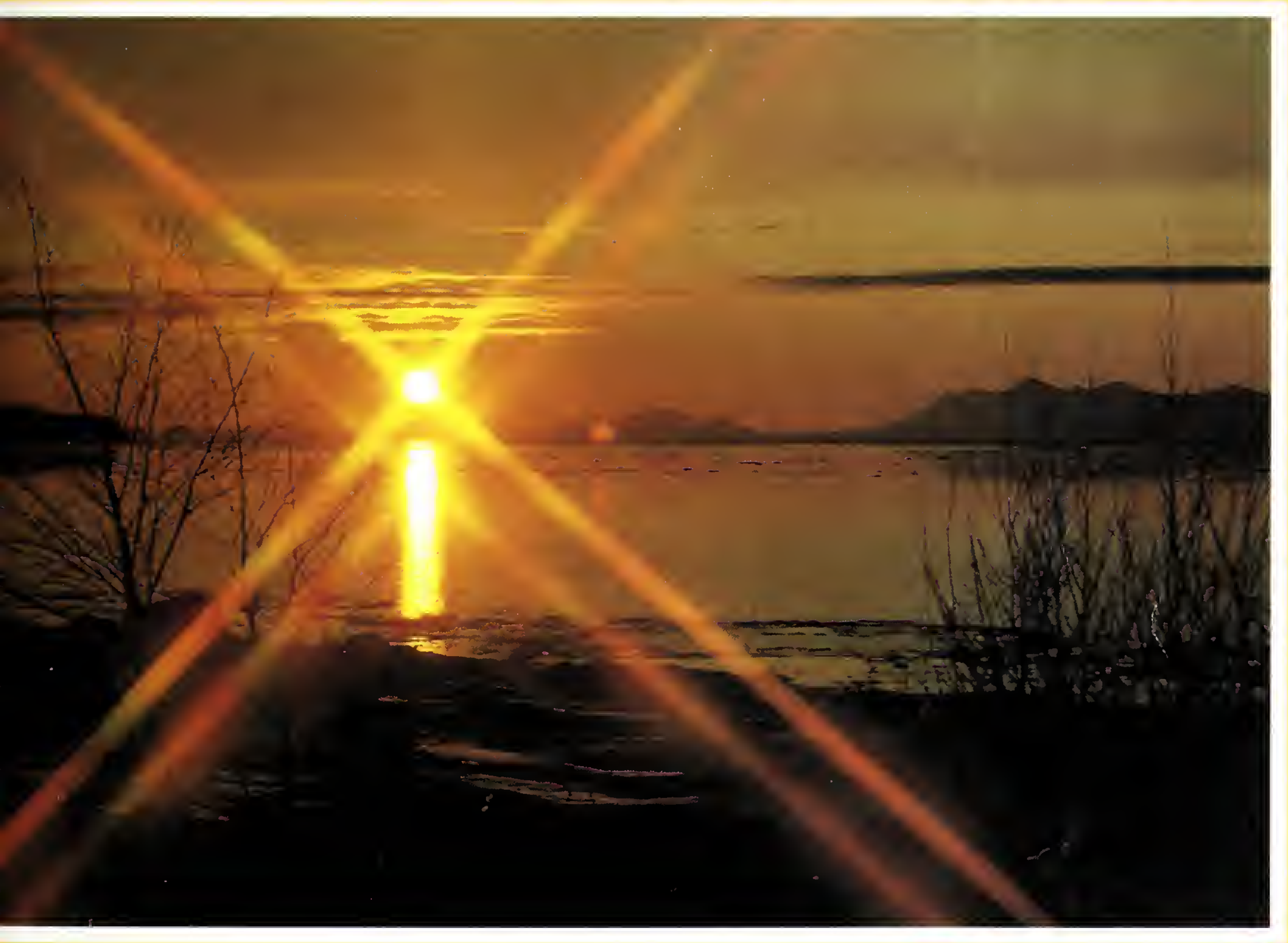

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Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

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ALASKA MEDICINE

Official Journal of the Alaska State Medical Association

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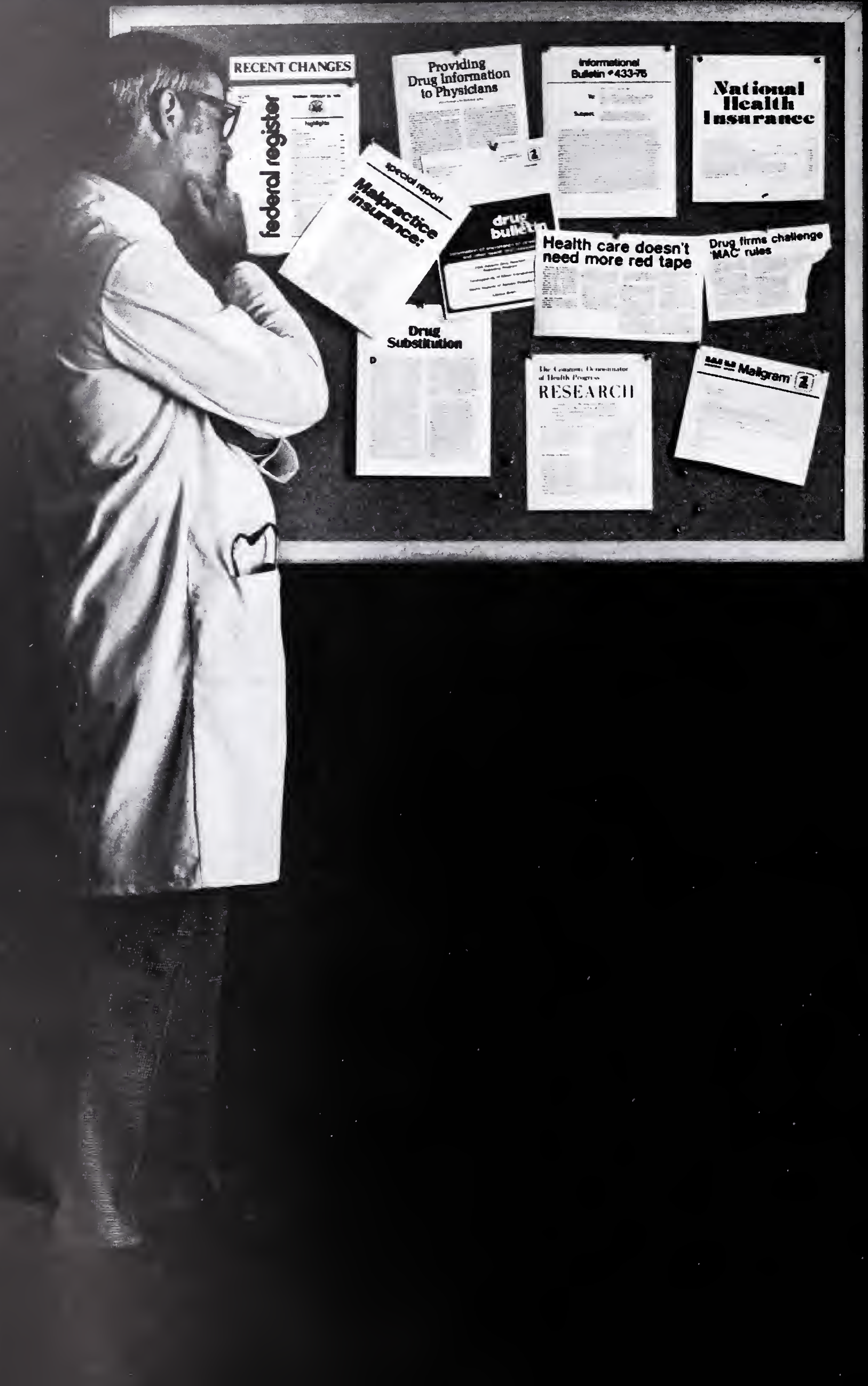
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THERE ARE A LOT OF PEOPLE GETTING BETWEEN YOU AND YOUR PATIENT.

Medicine today is in the spotlight, subjected to all nds of scrutiny. Your control over patient therapy is ng monitored, judged and occasionally abrogated, netimes by unknown third parties.

The worry is that in the wake of this focus, the relanship between you and your patient will be weakened, thout offsetting benefits. Consider three examples:

Drug substitution In most states, pharmacy laws, ulations or professional custom stipulate that your n-generic prescriptions be filled with the precise prods you prescribe. But in the last five years, a dozen or re State laws have been changed, permitting the pharcist in most cases to select a product of the same neric drug to fill any prescription.

Ironically, this dilution of physician control has en place against a background of growing evidence t purportedly equivalent drug products may be inivalent, since neither present drug standards nor their forcement are optimal. In fact, the FDA itself says it not enforced the same standards for hundreds of llow-on" products that it had applied to the original DA approvals. Thus physician control over patient rapy is being eroded with a risk that patients may be osed to drugs of uncertain quality.

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PERIARTERITIS NODOSA WITH A POSITIVE AUSTRALIA ANTIGEN IN A TWO-YEAR-OLD

Dennis M. DeLeo, M.D.

ABSTRACT

A case of periarteritis nodosa in early childhood is presented. The perplexing vagaries of the disease and the usefulness of arteriography, particularly coronary, are discussed in diagnosing the disorder. Several new facets of the disease are highlighted, especially recent evidence linking it with Australia antigen, and the effects viruses and their immune complexes play on the disorder. Steroids still appear to be the mainstay of therapy.

INTRODUCTION

Periarteritis nodosa is an uncommon disorder in both adults and children. With newer diagnostic techniques and greater understanding of the clinical course, the disease is being recognized with greater frequency prior to autopsy. Treatment, traditionally with steroids, and more recently immunosuppressants, appears to make a significant change for the better in the ultimate prognosis.

The following case report reveals the complexity of the disease, with its multisystem nature and protean manifestations, and demonstrates some of the newer thoughts about the relationship of the disorder with alteration of the immunologic system.

CASE REPORT

A two-year-old Eskimo girl from Napakiak, Alaska, had been developing normally and thriving until August 1974, when the mother noted the onset of daily fever for the preceding two weeks and diarrhea, at least 2-3 times per day, occasionally flecked with blood. The child's appetite had decreased, and she had occasional vomiting. She was also less active than other children her age and was intolerant of disturbance and activity around her. The child was seen, and an elevated WBC count with a left shift was noted. A stool culture was negative for enteropathogenic organisms. No specific treatment was instituted. Three days later a "red ear" was noticed, and ampicillin was begun. A WBC count was 27,000 per mm^3, with a normal differential. In spite of antibiotics, the fever persisted. Other symptoms and signs arose: swelling and pain of both wrists and ankles, and a "red rash" over both lower extremities. The child was admitted to the hospital.

Physical examination revealed a pale, uncomfortable, ill-appearing young girl. Rectal temperature was 102 degrees (F). There was a "reticular pattern" rash over the distal extremities, which deepened in intensity with crying. Swelling of the ankles and wrists was noted. An admission CBC showed a hemoglobin 11.0 grams %, a hematocrit of 33%, a WBC count of 23,600 per mm^3, with 72% lymphs, 2% bands, 20 lymphs, and 6% eosinophils. Repeated CBC's were similar. Sedimentation rates ranged between 34 and 53 mm/hr. Reticulocyte and platelet counts were normal. Urinalysis was normal, as were renal function studies and electrolytes. Liver function studies were normal, except for a mild decrease in serum albumin. LE prep and ANA were negative. CPR was positive. A cold agglutinin titer was 1=256. An ASO titer was 1:1600, but the patient was later found to

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have had an acute streptococcal cellulitis of the hand. Acute and convalescent febrile agglutinins were negative. An intermediate PPD was negative. Chest, skull, and long bone films were normal. Four blood cultures drawn were negative; stool cultures grew normal flora. A urine culture revealed no growth. Three stools collected for O&P were negative. A lumbar puncture yielded normal CSF.

The child's clinical course was not altered by her hospitalization. A trial of salicylates was begun, and the fever resolved. The rash, however, became tender, purpuric and more intense, and the aspirin was stopped. The patient was then transferred to the Alaska Native Medical Center in Anchorage, Alaska.

In Anchorage, additional information revealed that the child exhibited Raynaud's phenomenon early in the illness. Physical examination showed a chronically ill, fretful child. Rectal temperature was 101 degrees. Both ankles were swollen. Several purpuric, necrotic lesions were noted in the right lower extremity, especially over the lateral malleolus and dorsum of the right foot. The tip of the right index finger and the fourth toe on the right foot were also necrotic. Her skin had a blanched, mottled appearance, accentuated by crying. An admission CBC showed a hemoglobin of 9.2 grams %, a hematocrit of 27.9%, a WBC of 18,000 per mm^3 with 70% polys, 20% lymphs, 5% monos, 5% eosinophils. A sedimentation rate was 54 mm/hr. Platelets were adequate. A study of clotting mechanisms was normal. Urinalysis showed 12 WBC, 3 RBC per hpf, occasional WBC casts and 2-4 hyaline casts per hpf. Repeat UA's were free of casts with only occasional WBC's and bacteria/hpf. Cultures showed no growth. BUN and creatinine were 24mg% and 0.4 mg.%, respectively. Ca, P, Uric acid, SGOT and CPK were normal. A repeat lumbar puncture was normal, as were 12-hour urine collections for VMA and HVA. Stool collections collected for O&P were negative. An EKG was normal, as were chest, skull and sinus x-rays. Rheumatoid factor was negative, but a serum complement level was less than 10 CH 50 units/ml (normal 58-103). An HAA was positive.

A bone marrow aspirate revealed only granulocytic and normobloastic hyperplasia with decreased stainable iron. Bacterial, fungal and TB cultures were negative.

An IVP showed deviation of the right lower ureter anterioeaterally, secondary to some extrinsic process. An exploratory laparatomy was performed at which time a normal liver and spleen were found. Many matted and several enlarged lymph nodes were found in the periaortic region. Biopsies of periaortic and small intestinal mesenteric nodes revealed only non-specific reactive follicular and sinuisoidal hyperplasia. Cultures for bacteria, fungus, and TB were negative. The child's post-operative course was complicated by an abdominal incision that would not heal in spite of vigorous therapy for a presumed would-be infection with E. coli and *pseudomonas aeruginosa.*

The remainder of her hospital course was marked by progressive weight loss, poor appetite, irritability, intermittent abdominal pain with guaiac positive stools, and low-grade fevers of 100-101 degrees (F) rectally daily. Because of continued deterioration in her clinical status, and because of the unlikelihood of malignancy and chronic infection, steroids (prednisone at 2 mg/kg dose) were begun. There was dramatic improvement within several days. Her mood and appetite improved, causing a steady and progressive weight gain. Her intermittent abdominal pain resolved, her fever defervesced, and her abdominal wound quickly healed. The sedimentation rate fell from 54 mm/hr to 15 mm/hr.

The nagging uncertainty of the diagnosis as periarteritis nodosa coupled with the commitment of a young child to long-term steroid therapy, spurred further diagnostic tests. Celiac and renal arteriorgrams were performed. Generalized, severe arterial spasm was seen. There was a 3 mm. aneurysm projecting from the inferior aspect of the distal left renal artery. There also appeared to be marginal irregularities in some of the intra-renal arteries. Hepatic vessels were dramatically decreased in both size and number. The procedure was done through the right femoral artery, and during the arteriogram, the right common femoral artery did not visualize. After the procedure, the child underwent a thrombectomy to re-establish blood flow to her right leg. She was also plagued by transient hypertension, which responded to reserpine. Steroids were continued. Her clinical condition remained stable, and she was discharged to Napakiak, to be followed closely at the PHS Hospital at Bethel, Alaska.

DISCUSSION

Several good reviews of periarteritis nodosa are available from the literature[1,2]. The disease was first described by Kussmaul and Maier in 1866 [3]. Since that time, there have been scattered case reports at infrequent intervals, all bemoaning the vague and confusing nature of the disease[4-11]. A somewhat helpful pattern of symptoms and signs begins to emerge from a review of these, however. The most frequently seen are: (1) fever, often with little or no clinical explanation; (2) a fleeting, evanescent, macular, erythematous rash; (3) upper respiratory infection symptoms and signs, including a dry, nonproductive cough and conjunctivitis. Raynaud's phenomena, skin infarcts, arthralgias, myalgias, urticaria, and vomiting have also been described less frequently. Laboratory data most consistently reveal an elevated white blood cell count, often greater than 20,000 cells per cubic mm, and an elevated sedimentation rate. Eosinophilia has been described at times. Urinalyses may at times show cylinduria, and chest x-rays are occasionally interpreted as representing "pneumonitis." Electrocardiograms variably reflect changes of myocarditis or ischemia, but may also be normal. Many of the children are treated with antibiotics after appropriate cultures are collected, but to no avail. Their condition deteriorates, with progressive cardiac failure ending in cardio-respiratory arrest, which is unresponsive to resuscitation. At autopsy a surprising number of patients show multiple coronary artery aneurysms and varying degrees of thrombosis[2,4-7,9,10].

The disease was uniformly fatal before the use of steroids for treatment. Since that time, there have been several remissions reported, having been treated with steroids alone or in combination with other immunosuppressive agents, primarily azathioprine[1,8,9].

Diagnosis of the disorder prior to death was uncommon for several reasons. The symptoms and signs were vague and the illness rare. Recognition was not an easy matter. Even if considered, premortem pathology specimens were difficult to obtain. Skin and muscle biopsies were frequently unrewarding, especially in youngsters. Arteriography has recently brightened that previously dismal record. Several clinicians have now reported the successful use of arteriography, particularly coronary, to detect arterial aneurysms and vessel changes distinct to this disease process[5,8]. It is regrettable that our patient suffered a vessel occlusion, which is occasionally seen with this procedure. Coronary arteriography was planned but could not be carried out. Since a large proportion of children with the disease have coronary artery involvement, viewing these vessels radiographically would have been helpful for prognosis and future therapy. At least one case report describes a remission of periarteritis nodosa in infancy, only to have the patient succumb later, at seven years of age, to cardiac failure. At autopsy, numerous coronary artery aneurysms and thromboses were found[6].

Periarteritis nodosa has long been grouped in that category of diseases associated with deranged or altered immune mechanisms. Early studies suggested a "hypersensitivity reaction"; rabbits injected with serum showed arterial lesions resembling periarteritis nodosa[1]. It has been likened to allergic angiitis, for which several antibiotics, particularly penicillin, have been implicated[4]. More recently, Gocke and associates have shown a relationship between the presence of Australia antigen in serum and biopsy proven periarteritis nodosa[12,13]. Eleven patients were reviewed, four of whom had serum found to contain Australia antigen. Those four patients had mild changes in liver function studies. Interestingly, three of the four had circulating immune complexes of antigen (Australia), antibody (immunoglobulin), and complement. Furthermore, their serum complement levels were depressed. Others have also reported low serum complement levels with this disorder[5]. Gocke was able to demonstrate these immune complexes in arterial walls by fluorescent antibody techniques. He suggests that the diffuse vascular damage seen in periarteritis nodosa may in some way be implicated with these depositions of immune complex. Our patient had both serum containing Australia antigen and a very depressed serum complement level during the acute phase of her disease.

It would appear that with increased awareness of the disease, newer diagnostic techniques, and greater understanding of the pathophysiology of the disorder, more children could be spared the dismal outlook previously attributed to periarteritis nodosa. Remissions are being seen more frequently using steroids and occasionally azathioprine for treatment. □

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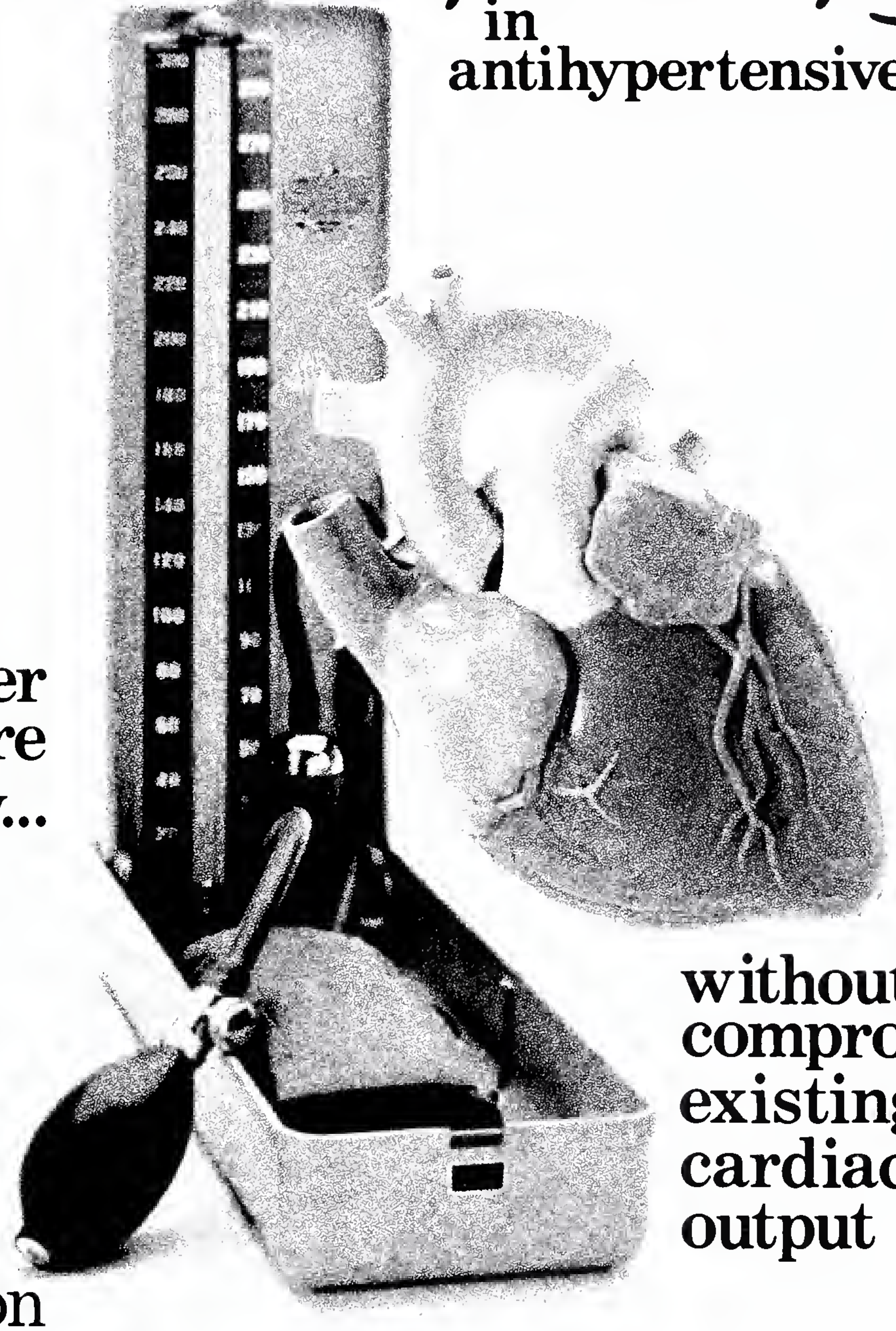

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At the start of methyldopa therapy, it is desirable to do a blood count (hematocrit, hemoglobin, or red cell count) for a baseline or to establish whether there is anemia. Periodic blood counts should be done during therapy to detect hemolytic anemia. It may be useful to do a direct Coombs test before therapy and at 6 and 12 months after the start of therapy. If Coombs-positive hemolytic anemia occurs, the cause may be methyldopa and the drug should be discontinued. Usually the anemia remits promptly. If not, corticosteroids may be given and other causes of anemia should be considered. If the hemolytic anemia is related to methyldopa, the drug should not be reinstituted. When methyldopa causes Coombs positivity alone or with hemolytic anemia, the red cell is usually coated with gamma globulin of the IgG (gamma G) class only. The positive Coombs test may not revert to normal until weeks to months after methyldopa is stopped.

Should the need for transfusion arise in a patient receiving methyldopa, both a direct and an indirect Coombs test should be performed on his blood. In the absence of hemolytic anemia, usually only the direct Coombs test will be positive. A positive direct Coombs test alone will not interfere with typing or cross matching. If the indirect Coombs test is also positive, problems may arise in the major cross match and the assistance of a hematologist or transfusion expert will be needed.

Fever has occurred within first 3 weeks of therapy, sometimes with eosinophilia or abnormalities in liver function tests, such as serum alkaline phosphatase, serum transaminases (SGOT, SGPT), bilirubin, cephalin cholesterol flocculation, prothrombin time, and bromsulphalein retention. Jaundice, with or without fever, may occur, with onset usually in the first 2 to 3 months of therapy. In some patients the findings are consistent with those of cholestasis. Rarely fatal hepatic necrosis has been reported. These hepatic changes may represent hypersensitivity reactions; periodic determination of hepatic function should be done particularly during the first 6 to 12 weeks of therapy or whenever an unexplained fever occurs. If fever and abnormalities in liver function tests or jaundice appear, stop therapy with methyldopa. If caused by methyldopa, the temperature and abnormalities in liver function characteristically have reverted to normal when the drug was discontinued. Methyldopa should not be reinstituted in such patients.

Rarely, a reversible reduction of the white blood cell count with primary effect on granulocytes has been seen. Reversible thrombocytopenia has occurred rarely. When used with other antihypertensive drugs, potentiation of antihypertensive effect may occur. Patients should be followed carefully to detect side reactions or unusual manifestations of drug idiosyncrasy.

Use in Pregnancy: Use of any drug in women who are or may become pregnant requires that anticipated benefits be weighed against possible risks; possibility of fetal injury can not be excluded.

Precautions: Should be used with caution in patients with history of previous liver disease or dysfunction (see Warnings). May interfere with measurement of: uric acid by the phosphotungstate method, creatinine by the alkaline picrate method, and SGOT by colorimetric methods. Since methyldopa causes fluorescence in urine samples at the same wavelengths as catecholamines, falsely high levels of urinary catecholamines may be reported. This will interfere with the diagnosis of pheochromocytoma. It is important to recognize this phenomenon before a patient with a possible pheochromocytoma is subjected to surgery. Methyldopa is not recommended for patients with pheochromocytoma. Urine exposed to air after voiding may darken because of breakdown of methyldopa or its metabolites. Stop drug if involuntary choreoathetotic movements occur in patients with severe bilateral cerebrovascular disease. Patients may require reduced doses of anesthetics; hypotension occurring during anesthesia usually can be controlled with vasopressors. Hypertension has recurred after dialysis in patients on methyldopa because the drug is removed by this procedure.

Adverse Reactions: *Central nervous system:* Sedation, headache, asthenia or weakness, usually early and transient; dizziness, lightheadedness, symptoms of cerebrovascular insufficiency, paresthesias, parkinsonism, Bell's palsy, decreased mental acuity, involuntary choreoathetotic movements; psychic disturbances, including nightmares and reversible mild psychoses or depression.

Cardiovascular: Bradycardia, aggravation of angina pectoris. Orthostatic hypotension (decrease daily dosage). Edema (and weight gain) usually relieved by use of a diuretic. (Discontinue methyldopa if edema progresses or signs of heart failure appear.)

Gastrointestinal: Nausea, vomiting, distention, constipation, flatus, diarrhea, mild dryness of mouth, sore or "black" tongue, pancreatitis, sialadenitis.

Hepatic: Abnormal liver function tests, jaundice, liver disorders.

Hematologic: Positive Coombs test, hemolytic anemia. Leukopenia, granulocytopenia, thrombocytopenia.

Allergic: Drug-related fever, myocarditis.

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Note: Initial adult dosage should be limited to 500 mg daily when given with antihypertensives other than thiazides. Tolerance may occur, usually between second and third month of therapy; increased dosage or adding a thiazide frequently restores effective control. Patients with impaired renal function may respond to smaller doses. Syncope in older patients may be related to increased sensitivity and advanced arteriosclerotic vascular disease; this may be avoided by lower doses.

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THE CURRENT MANAGEMENT OF MALIGNANCY — VI

OTHER SOLID TUMORS

Frank J. Panettiere, M.D., F.A.C.P.

INTRODUCTION

There is a good deal that the physician can do to help patients afflicted with such problems as widely disseminated malignant melanomas, testicular carcinomas, sarcomas, etc. But this fact is not known by most physicians; therefore, all too commonly, what can be done to help such patients is never even thought of, much less tried. The purpose of this article is to demonstrate what can be done to assist patients afflicted with malignancies not covered in the earlier articles in this series.

Before beginning, however, two points are worth emphasizing. Firstly, there has been a good deal of progress in the handling of these tumors. Most of what is available today to help these patients did not exist when this series of articles began in 1973. Therefore, one could reasonably expect that soon, what is suggested here will become obsolete, or at least out of date, as further improvements are developed. The second point is a corollary of this: namely, that a patient is not benefitted by advances in therapy unless his physician is aware of these advances. This means that for optimal therapy, the patient should be offered a program tailored for him by a team of physicians who are expert and up to date in the surgical, the radiotherapeutic, and the medical aspects of malignant disease. If possible, all should be planned before any therapy is undertaken. The surgeon should check with the radiotherapist to see if radio-opaque clips should be placed at the margins of a tumor mass to help subsequently in the design of appropriate ports so that all known disease will be treated with minimal exposure to nearby healthy tissues. Such clips may subsequently be also useful to the chemotherapist to help him follow the response, or lack of response, to therapy of an otherwise occult tumor. If the radiotherapist, the chemotherapist, and the surgeon share with each other what they can offer the patient, then the amount of surgery, or radiotherapy, or chemotherapy can be modified to fit in with a coordinated plan so as not to cause either unnecessary toxicity or inadequate therapy.

MALIGNANT MELANOMA

It is surprising to most physicians how much can be done to treat the patient with malignant melanoma. Not only can much be done today, but there also are many leads which undoubtedly will soon result in further advances in therapy. The best single drug today to manage malignant melanoma is Dacarbazine, otherwise known as DTIC[1, 2, 3]. As a general rule, this drug by itself offers a 20 per cent chance of causing

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The first article of this series, on cancer of the breast, appeared on pages 114-116 of the September 1973 issue of *Alaska Medicine*. The second article, a discussion of Hodgkin's Disease, appeared on pages 7-11 of the January 1974 issue. The third article, a discussion of lymphoproliferative disorders and leukemias, appeared on pages 88-92 of the July 1974 issue. The fourth article of this series, pertaining to cancer of the lung, appeared on pages 35-41 of the May 1975 issue. The fifth article on this series, a discussion of tumors of the gastrointestinal tract, appeared on pages 63-66 of the September 1976 issue.

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significant shrinkage of metastatic malignant melanoma. When Dacarbazine is combined with BCNU and Hydroxyurea, the chance for tumor shrinkage is greatly enhanced. Many hundreds of patients have been treated with this three-drug combination and consistently, the response rate is in the range of 30 to 35 per cent[4]. In accordance with this protocol, the patient receives five daily infusions of Dacarbazine and five days of oral Hydroxyurea every four weeks. Once every eight weeks, the patient receives an intravenous injection of BCNU. The program can be highly effective, but careful attention to dosage is necessary so as not to cause excessive toxicity. Because so many patients have been treated with this program, one must unequivocally say that today, this is the best-known chemotherapeutic regimen for treating the patient with malignant melanoma. Because of a report that Dacarbazine plus BCG may be just as effective as this three-drug combination, there is currently a nationwide study underway comparing the three drugs with the three drugs plus BCG and with Dacarbazine plus BCG. Thus far, approximately 400 patients have been entered into this study and it does not appear that BCG immunotherapy adds to the 20 per cent response rate of Dacarbazine or the 32 per cent response rate of the three-drug combination. However, it remains possible that BCG might prolong the duration of survival.[5]

There are many suggestions in the literature that immunologic responsiveness, and therefore, immunotherapy such as with BCG, may be of vital importance in malignant melanoma. It has been shown that patients with localized disease will usually have skin test reactivity against extracts of their own tumor. If the same patients later develop disseminated disease, however, they become anergic to the same material. Moreover, there have been a number of reports of spontaneous regressions of malignant melanoma as well as regressions which have seemed to follow viral infections. In addition, it is well recognized that inoculations with BCG into skin nodules can cause them to disappear. Sometimes uninjected nearby skin nodules will also regress[6]. Unfortunately visceral metastases have not been observed to shrink in response to such cutaneous inoculations of BCG. On the other hand, it has been reported that if a patient has minimal residual disease and is treated by inoculations of BCG, there seems to be a prolongation of survival[7].

At the present time, a number of large cooperative groups are studying the effects of immunotherapy, or chemotherapy, or both together, as an adjuvant to the initial therapy for the patient who, despite the initial resection of all known malignant melanoma, has a very high likelihood of recurrence. This includes patients who have primary malignant melanomas of the anus, the vulva or the choroid. Other patients offered adjuvant therapy because of a high risk for recurrence include those whose tumors involve the reticular dermis or deeper structures in the skin, and those who have tumors which have ulcerated, and those whose tumors are associated with blood vessel or lymphatic invasion. As of today, it is uncertain whether any of these adjuvant forms of therapy will cause significant benefit for the patient. Although such regimens are widely utilized in most medical centers, one must realize that any chemotherapy offers the possible risk of causing immunosuppression which may be of vital importance if immunologic factors are active in controlling this disease. Moreover, immunotherapy for this disease has not yet been proven to be unquestionably beneficial.

SARCOMAS

Disseminated sarcomas of bone or soft tissue origin are also generally thought to carry a dismal prognosis. This was the case until the pioneering work of the late Jeffrey Gottlieb led to the development of effective regimens for these tumors. Initially, he and the Southwest Oncology Group studied Adriamycin by itself to manage sarcomas and 31 per cent of 98 patients had objective shrinkage of their metastatic tumors. Subsequently, he combined Adriamycin with Dacarbazine and 42 per cent of 325 patients had objective shrinkage of their metastatic tumor. These responses were followed by prolonged survival. Where Adriamycin alone resulted in a median duration of survival of nine months, the median duration of survival after Adriamycin-Dacarbazine exceeded one and a half years[8].

The effectiveness of this combination is exemplified by two patients I treated with these drugs while I was in Alaska. One, a lady assigned to Fort Richardson, had a neurofibrosarcoma with massive pulmonary metastatic disease. Within six weeks, her chest x-ray became normal. Sometime later, she died in Denver, Colorado. Because no evidence of the tumor was found at autopsy, the pathologist there requested, and I sent him, her diagnostic tissue. He agreed that she had had a neurofibrosarcoma and that there was no evidence of any residual tumor at her subsequent autopsy. The other patient, a lady from Wasilla, had a uterine sarcoma. This was proven by vaginal biopsy, but a hysterectomy was not accomplished because her chest x-ray revealed at least 20 pulmonary metastases. She was started on Adriamycin and Dacarbazine, and over the next nine weeks, her chest x-ray became normal. Over a six-month period, her pelvic examination became normal. Chemotherapy was discontinued after two years. Some two and a half years later, she suddenly died, apparently of an acute coronary. No recurrence of her disease had been found on repeated chest x-rays. Pelvic examinations had remained normal even though a hysterectomy was never accomplished.

Because of cases such as these, one can today be somewhat optimistic about the management of disseminated sarcomas. Because of such experiences, many centers are now giving to patients without proven metastases, adjuvant chemotherapy with these two drugs as part of the initial surgical management of sarcomas. The hope is that the chemotherapy may be able to eradicate metastatic disease before it becomes evident clinically. Although adjuvant chemotherapy has proven beneficial in children, especially children with bone sarcomas, whether this form of treatment will prove beneficial for adults initially being treated for their sarcoma remains unknown. Also unclear at this time is the value of immunotherapy in the management of soft tissue and bone sarcomas. Sarcoma-specific antigens have been demonstrated. For this reason, immunotherapy is being tried for such tumors, but there is no evidence at this time whether such therapy will prove beneficial.

GENITOURINARY MALIGNANCIES

Testicular cancer is another form of malignancy which, despite dissemination, no longer carries a grave prognosis. Many drugs and combinations of drugs have proven able to cause complete disappearance of all known metastatic deposits from testicular cancer in up to 29 per cent of patients so treated. There are six different regimens which have resulted in at least 50 per cent shrinkage of all known metastatic tumors between 41 percent and 90 per cent of the time[9]. Today, the best-known regimen to treat this problem involves the utilization of Velban plus Bleomycin which together can offer a 90 per cent chance of causing at least a 50 per cent shrinkage of testicular cancer. To this combination is added a newer platinum compound, not yet released for general use which, even by itself, has proven effectiveness in the treatment of all varieties of testicular cancer[10]. Velban and Bleomycin plus this platinum compound are now being used in multiple institutions to treat disseminated testicular cancer. There is one report on the therapy of 21 patients with pulmonary metastases. One of these patients died five days after therapy began. Of the remainder, 16 of the 20 had complete disappearance of all known tumor, and the other four had more than 50 per cent, but less than 100 per cent, disappearance of their metastatic implants. Fourteen of the 16 patients who had complete disappearance of their tumor remained alive and free of any evidence of disease six to 18 months later[11] . Certainly further experience has indicated that a 100 per cent response rate to this therapy is not to be expected. However, the true response rate to this three-drug combination seems to be in the range of 90 per cent. This greatly changes the formerly dismal prognosis for patients with disseminated testicular cancer.

As far as cancer of the ovary is concerned, there are a number of other factors of importance. Vital is the initial surgical management of this tumor. It has been well documented that "debulking" greatly improves duration and quality of survival. Therefore, the patient is benefitted if, whether or not she seems to be surgically curable, all disease that is resectable is removed. Therefore, such procedures as a partial omentectomy and removal of other intra-abdominal implants greatly benefits the patient. Unfortunately, little is known with any certainty as to the effectiveness of chemotherapy for this disease. All too often, the patient presents with intra-abdominal disease which cannot be followed clinically. For this reason, it is difficult to assess the true responsiveness of these tumors to systemic chemotherapy. The response rate to drugs has been reported to vary between 35 per cent and 65 per cent. Nevertheless, only five per cent to 15 per cent of patients continue to respond at two years[12]. Standard chemotherapy has involved the use of alkylating agents such as Cytoxan, Melphalan or Leukeran. Combinations of drugs have been tried, and may offer better degrees of effectiveness and longer durations of benefit. However, only small numbers of patients have been treated with these alternate regimens and the absence of accurately measurable tumor makes it difficult to assess the effectiveness of one regimen in comparison with others. We recently have been using the modification of the Cooper five-drug breast cancer chemotherapy regimen in doses much lower than he reported originally in 1969[13]. The modification we use involves the patients taking daily oral Cytoxan at a dose of 60 mg/m^2. (In the average patient, this means 100 mg.) She takes Prednisone at an initial dose of 45 mg daily for two weeks, then 30 mg daily for two weeks with further tapering subsequently. She is given once-a-week injections of intravenous Methotrexate at a dose of 10 mg/m^2, plus 5-Fluorouracil at a dose of 300 mg/m^2 and

Oncovin at a dose of 0.625 mg/m^2 (usually 1 mg). This has proven to be such a well-tolerated regimen that we administer it to many patients in the morning just before they go to a full day's work at their jobs. We recently reported on the use of this combination in 17 ovarian cancer patients. Its effectiveness seems to be, at least in these small numbers of patients, greater than has been seen with other forms easily tolerable chemotherapy[14]. Obviously it will take many more patients to determine whether this regimen offers any advantage compared to the more standard therapeutic regimens of oral alkylating agents. But in any case, it certainly does not seem to be any more toxic than such therapy.

Because of the frequent use of the pap smear, more and more cancer of the cervix should be discovered early and cured by the initial therapy. Generally, the treatment of choice has been surgery, or radiotherapy, or both together. The great majority of patients should be seen, and their case discussed together, by radiotherapists and gynecologists before any intervention is undertaken so that a decision can be made as to the best mode of therapy for the individual patient's case. Among the chemotherapy drugs useful in the treatment of cancer of the cervix have been Bleomycin[15]. The drug Porfiromycin has also been proven to be effective in such tumors[16]. Although Porfiromycin is currently not clinically available, it is a methyl analogue of Mitomycin C, which is readily available, and which also has a degree of effectiveness in the management of cancer of the cervix. The main problem with Porfiromycin, or Mitomycin C, is that both of these drugs are rather intensively myelo-suppressive. Therefore, one must be careful when utilizing them in a patient who has already had total pelvic radiotherapy which permanently impairs bone marrow tolerance. Although combinations of Bleomycin, Vincristine and Mitomycin C have been devised, they seem to have been too toxic to recommend them for general clinical use.

Although carcinoma of the prostate is now the second most common male malignancy in the U. S., there is a good deal of question as to the true effectiveness of various forms of therapy for this disease. It seems clear that surgical resection of the primary tumor is the appropriate form of therapy in the initial management of this disease. However, in a patient who has dissemination, it has not been proven whether the most appropriate next step is orchiectomy, estrogen administration, both together, or both in sequence. Although many physicians have strong opinions as to which of these treatment modalities should be used first, there are today no objective data to tell us unequivocally which of these is the best form of endocrine management of this tumor. As far as radiotherapy in the management of these patients is concerned, although it is rather well recognized that it can often relieve bone pain, unfortunately many physicians forget that small dose radiotherapy to the chest at the time that estrogens might be administered will serve to prevent painful gynecomastia from developing. (If all patients with malignant disease are, as we suggest, followed by a multidisciplinary team of physicians, no patient would fail to receive this radiotherapy benefit.) Another problem with estrogen therapy in these elderly patients can be fluid retention which may cause mild, or even gross, heart failure. As far as the chemotherapy of carcinoma of the prostate is concerned, the common difficulty in measuring objective tumor response makes it difficult to judge the effectiveness of drug therapy. This is especially important in the case of cytoxic chemotherapy where avoidance of harm necessitates an early appraisal of treatment efficacy. Among the drugs that have shown some effectiveness in the management of this tumor are Adriamycin, 5-Fluorouracil, Cytoxan, and Hydroxyurea[17-19]. Because Adriamycin can cause severe nausea and vomiting as well as cardiac toxicity, which may be in a special problem in the prostate cancer age group, one would not tend to use this as the chemotherapy of first choice. It is well recognized that Cytoxan can cause hemorrhagic cystitis, especially in patients who have a poor urinary output. Therefore, one might tend to be reluctant to use it. On the other hand, Cytoxan can be administered orally, a definite convenience factor. Most physicians have little experience with any drug, especially with a cancer chemotherapy drug, can be considered a relative contraindication to the use of such an agent. For these reasons, 5-Fluorouracil might be the most rational first drug to use in the patient with carcinoma of the prostate unless the need for an oral medication in a patient who would take enough fluids by mouth would make one select Cytoxan.

As far as carcinoma of the urinary bladder is concerned, the primary form of treatment remains surgical with or without supplementary radiotherapy. The problem has been that if the disease extends beyond the confines of the pelvis, the five-year survival rate is only three per cent. For such patients, effective chemotherapy is a requirement. The most widely tested drug for this tumor has been Adriamycin. By tabulating the results of multiple studies, one observes an overall response rate of 28 per cent to 35 per cent[20-22].

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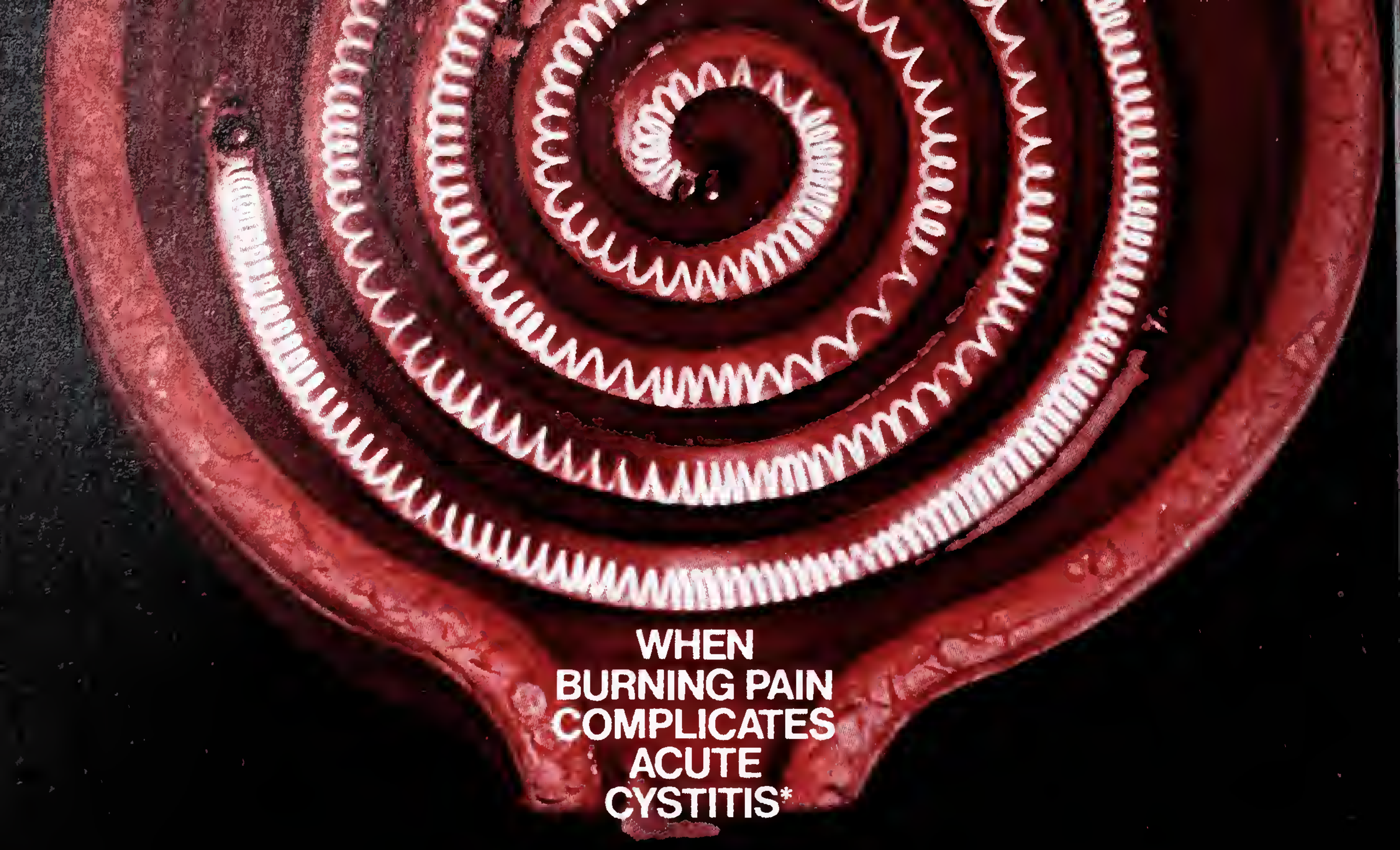

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Note: Carefully coordinate *in vitro* sulfonamide sensitivity tests with bacteriologic and clinical response; add aminobenzoic acid to follow-up culture media. The increasing frequency of resistant organisms limits the usefulness of antibacterials including sulfonamides. Measure sulfonamide blood levels as variations may occur; 20 mg/100 ml should be maximum total level.

Contraindications: Children below age 12; sulfonamide hypersensitivity; pregnancy at term and during nursing period; because Azo Gantanol contains phenazopyridine hydrochloride it is contraindicated in glomerulonephritis, severe hepatitis, uremia, and pyelonephritis of pregnancy with G.I. disturbances.

Warnings: Safety during pregnancy not established. Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been reported and early clinical signs (sore throat, fever, pallor, purpura or jaundice) may indicate serious blood disorders. Frequent CBC and urinalysis with microscopic examination are recommended during sulfonamide therapy.

Precautions: Use cautiously in patients with impaired renal or hepatic function, severe allergy, bronchial asthma; in glucose-6-phosphate dehydrogenase-deficient individuals in whom dose-related hemolysis may occur. Maintain adequate fluid intake to prevent crystalluria and stone formation.

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Precautions: Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics, or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spironolactone is used concomitantly, determine serum K+ frequently; both can cause K+ retention and elevated serum K+. Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded, in the other serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving Dyrenium® (triamterene, SK&F Co.), and leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with thiazides. Do periodic blood studies in cirrhotics to check for nondrug-related variations in blood pictures, and in patients with folic acid depletion, since 'Dyrenium' may contribute to appearance of megaloblastosis. Antihypertensive effect may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone.

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Renal adenocarcinoma is the tumor about which medical oncologists are most pessimistic. Certainly, immunologic factors seem to be important here. There have been several reports that removal of the primary tumor will cause regression of distant metastases. This does not occur often, but nevertheless, it is worth considering. In addition, there have been reports that hormonal therapy, apparently in an attempt to suppress a tumor that has regressed to have characteristics of a primitive precurser from the urogenital ridge, has been effective. Most commonly, progesterones are used, although other hormones have also been tried. Although definite responses have been reported, the response rate is unquestionably low. As of today, there is no chemotherapy drug or combination of drugs that has been shown to reliably cause objective tumor remissions of renal cell carcinomas.

CANCER OF THE HEAD AND NECK REGION

Primary brain tumors are generally managed by surgical resection and, if there is any question as to whether total resection has been accomplished, postoperative radiotherapy is added. Recurrent disease in the patient who has already received both modes of therapy is a difficult problem. The great majority of cancer chemotherapy drugs do not appreciably cross the blood-brain barrier. Among the few that do cross it is the group known as nitrosoureas. Recently released for general use is one of these, CCNU. It, as well as other members of the nitrosourea family, has shown enough effectiveness in the management of primary brain tumors that currently is being used as part of the initial treatment of patients with unresectable primary brain tumors. Here is another example of a combined modality approach in the treatment of patients with cancer. Within four weeks of the surgical attempt to remove all known tumor, patients are started on Dexamethasone (to try to prevent cerebral edema) and are given total brain radiotherapy at a dose of 6,000 rads over a six-week period. Two to three days prior to the institution of the radiotherapy, the first dose of CCNU is given. It is repeated every six weeks thereafter. Although the result is by no means certain, it appears that this combination approach does increase the chance of clinical disappearance of tumor and also seems to prolong survival. Procarbazine, which also crosses the blood-brain barrier, has been tried in combination with CCNU but such therapy results in significantly more toxicity with actually less in the way of responsiveness[23].

The other cancers of the head and neck region are mainly epidermoid carcinomas. For these, it is recognized that surgery or radiotherapy, or both together, or in sequence, comprise the usual initial therapy. Here too, the best benefit to the patient occurs if prior to the institution of any therapy, he is seen both by a radiotherapist and by an appropriate surgeon so that they can discuss together the best management of his problem. As far as chemotherapy is concerned, Methotrexate has been well documented as being the standard treatment for this form of malignancy. A recent large-scale study, nevertheless, demonstrated an overall objective response rate of only 24 per cent despite a drug-related mortality rate of five per cent. Nevertheless, Methotrexate produced a median duration of response of only one to three months[24] . Of some importance is the fact that this particular study documented the fact that high-dose Methotrexate with Citrovorum Rescue caused a median duration of response of only 35 days, or less than the three-month duration from weekly intravenous injections of Methotrexate. By using growth kinetic principles derived from repeated biopsies of accessible lesions in the head and neck region, we recently devised a chemotherapy regimen that seems more beneficial. The rationale is described in the paper, but in brief, it involves the use of Bleomycin in an attempt to synchronize cancer cells to make them more susceptible to the subsequent administration of Methotrexate. A 48-hour continuous infusion of Bleomycin is followed by a 24-hour rest which is followed by either a single dose of Methotrexate or a single dose of Hydroxyurea. Ten of 17 patients (or 59 per cent) had an unquestioned tumor regression. Toxicity was mainly mild to moderate reversible neutropenia. Good patient tolerance and with relatively decreased toxicity despite essentially the same response rate as other forms of treatment, make us recommend this as a reasonable approach to follow in the future [25]. Another form of therapy which may prove valuable as part of the combined approach in the management of cancer of the head and neck region involves immunotherapy. It has been well documented that patients with cancer of the head and neck region, even after all known disease has been removed, have a profound impairment of immune responsiveness [26]. Moreover, there are data to indicate that the radiotherapy that these patients frequently receive also greatly impairs immune responsiveness [27]. Certainly, it is unknown at this time whether immunotherapy, by improving the patient's immunologic parameters may also improve his resistance against his disease and prolong his survival. This possibility is now being tested in many centers.

Carcinoma of the thyroid is a tumor which can be associated with prolonged survival and little morbidity, if appropriately treated. Unfortunately, all too often, optimal therapy is not given. A patient who has a thyroid carcinoma should, if at all possible, receive a total thyroidectomy. Initially, no thyroid replacement hormones should be given, and approximately four weeks after surgery an ablative dose of radioactive iodine should be given. This adjuvant radiotherapy should increase the chance that any residual tumor left behind would be destroyed as part of the initial management of the disease. After this, the patient should be placed on thyroid replacement at barely subtoxic doses so as to suppress any production of thyroid-stimulating hormone. Periodic scanning procedures with high dose of radioactive iodine should be accomplished subsequently. Usually, this should follow three days of exogenous TSH stimulation prior to scanning. The procedure of discontinuing thyroid replacement therapy should be avoided as it might stimulate tumor growth and it definitely will make the patient feel miserable from myxedema. Generally, it has been thought that follicular carcinomas of the thyroid would respond to radioactive iodine but papillary carcinomas would not. In practice, the great, great majority of thyroid carcinomas are mixed papillary and follicular. Therefore, it is quite rational to attempt radioactive iodine therapy in almost all patients. If the tumor does grow despite such therapy, the drug of choice today seems to be Adriamycin.

OTHER SOLID TUMORS

For other solid tumors not mentioned here, the same principles apply as has been mentioned previously. Prior to any therapy, the patient should be seen by a team consisting of his personal physician, the appropriate surgeon, a radiotherapist and a medical oncologist. They should work together and offer the patient a team integrated approach tailored to best help him. Here we cannot discuss the general approach to surgery or radiotherapy for all solid tumors, but we can conclude this paper with a discussion of a chemotherapy regimen which has proven effective in a wide variety of different forms of malignancy. Over the past seven years, I have seen it cause definite objective responses of such tumors as malignant melanoma, osteogenic and soft tissue sarcomas, testicular tumors, GI tract and bronchogenic malignancies, and a large variety of miscellaneous tumors. This regimen has been used in thousands of patients worldwide, and although there are other treatment programs which can offer greater degrees of effectiveness in specific tumors, the one I am about to discuss forms a good, often effective, "broad spectrum" effect against so many different tumors that it probably is the most rational one to use in the patient who is suffering from disseminated disease from an unknown primary. The program involves a four-drug combination given by intravenous injections daily for five days every four weeks. It includes Cytoxan, usually at a dose of 150mg on the first and fifth day of each course. Oncovin is given at a dose of 0.25mg/kg, but no more than 2mg per dose, on the second and fifth day of each course. Methotrexate is given at a dose of 0.25mg/kg intravenously on the first and fourth day of each course. 5-Fluorouracil is given at a dose of 10mg/kg intravenously for all five days of the five-day course. If a patient is one we would suspect would tolerate chemotherapy poorly (significant radiotherapy in the past, poor nutrition or impaired renal or hepatic function), then the Cytoxan dose is generally reduced by one-third and the Methotrexate dose cut in one-half. For elderly patients, the dose of Oncovin is cut in half because such individuals are often excessively sensitive to Oncovin neuropathy[28-29].

We have attempted to give a general concept as to the principles in the management of patients with solid tumors. Articles such as this cannot form any recipe for the management of any individual patient, but mainly are offered to advise the practicing physician what is currently available so that he may be able to offer his patient the best hope in the management of his problems. □

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PRESIDENT'S PAGE

In our imbroglio with the legal profession we are fond of pointing out that their system of litigation is rapidly pricing itself out of the field as a practical mechanism for settling differences regarding medical injury, or for that matter, torts of all kinds. The overhead of the system now exceeds by several fold the benefits derived. Much closer to heart, our cherished system of delivering health care is similarly subject to considerable attack because it, too, is becoming an expensive burden, now representing some eight percent of our gross national product. With $250-a-day hospital beds and many thousand-dollar hospital stays, a great clamor for change is rising. Much of this noise is directed towards increased government control, specifically mandatory prepayment, without notable mention that many of our present problems may be directly derived from bureaucratic intrusions in the system, and that further expansion of these may be throwing gasoline on the fire.

In my editorial last fall, I pointed out that, although the supposedly wealthy doctor is commonly accused by iconoclastic planners as a source of medical waste, HEW figures demonstrate that physicians' profits from practice represent only 11 to 12 percent of the health care dollar, and that if significant economies are to be made, one will have to look elsewhere for them. A second favorite area for health planners is in the elimination of certain inefficiencies, such as duplication of facilities and supranumerary beds, and undoubtedly some small economies are possible here but will be limited.

The rather bitter bullet that the planners are only gingerly biting now is that the rise in medical care costs (14 percent in 1975 alone) is largely due to expansion in types and quantity of services, and to exert real economy there must be restriction of service.

Robert D. Whaley, M.D.

Tentative beginnings have been made in the establishment of hospital stay norms, review of records for justification of procedures and so forth. This approach is limited by the fact that it requires substantial review by a competent professional person to determine if a medical procedure or study is justified. Since this is obviously impractical on a routine basis, decisions as to what medical services will be provided patients will be inevitably made by nonprofessional and therefore incompetent people. Were this merely a matter of the waste of a few dollars it would be less important to us, but it raises the frustrating specter of cookbook medicine by bureaucrats, and as potential patients, which we all are, we shudder at the thought. Parenthetically, the first university studies of the effectiveness of the PSRO program have shown that there has been so far no measurable economy. Not often considered are the procedures and recordkeeping that we as individual doctors are now doing in order to justify our medicine to our watchdogs. Indeed, if the demands of bureaucratic directives and of possible legal justifications were eliminated, we would undoubtedly be spending 10 to 20 percent less of our patients' funds.

Our government now pays about half of our health bills. The proliferation of PSRO, CHP and HSA, and of utilization review is, however, a clear statement by that government that costs are to be reduced and that it doubts the motivation of the people now in control — that's us — to do so. And it is right; we are not primarily motivated to economize on our patients' medical services, nor should we be! My duty is to do what is best for my patient, and since procedures and tests will often help him and since they usually cost him little (under prepaid plans), I have the moral obligation to do all such that are reasonable, however expensive. It is not a question of doing unnecessary tests and procedures. There is often a variety of possible medical services of varying degrees of cost and complexity (and danger). These must be weighed against their prospective benefit and a decision made as to whether or not to use them. The fact that immediate cost to our client, the patient, is often negligible is a powerful push toward increased utilization.

My immodest proposal is that instead of having these determinations made by laymen, whose basic qualification is a motivation to economy, but who are completely untrained in making medical judgments, it is far better to utilize doctors who have some 10 or 15 years of training in such judgments and to give them appropriate motivation. Then whether a patient with his myocardial infarction stays in the hospital for 10 days or three weeks will be a reasonable balance between cost and benefit; and not be based on a Washington-issued norm. How to do it? There are two primary methods that seem practical.

First and most direct is to let the patient pay for his services. The doctor then works for the patient and makes these delicate cost-effectiveness-hazard judgments in the patient's best interest. This has the delightful virtue of keeping the doctor and patient as partners in a common project, the patient's well-being. This salubrious condition will, in the run-of-the-mill daily work, eliminate much overhead cost, strongly encourage physician/patient information exchange, and give to the patient the important sense of receiving the personal responsibility of his physician. Appropriate insurance will provide only for the large or catastrophic illness or accident, and here public funds may be required to aid many of us.

For those who cannot afford to pay for their routine medical care, humanitarian considerations, not a constitutional right, dictate that such care be provided. Practical economies demand however that if someone other than the patient is to pay for the service, then that someone else will decide what service is to be provided. In return for free care the patient will necessarily abdicate his right to determine that care. Whether a particular bit of health service is provided again must be the decision of a health care professional, the only person competent to do so, working for the health care provider, such as under our present military system. In order to limit services the professional may be given the profit incentive as is done in many prepaid capitation-type plans. The lower the case cost, the more the physician makes. He then merely balances his clinical judgment, his conscience, and his avarice, in this respect. Many prepaid health care plans, such as the Permanent Foundation on the West Coast, have worked reasonably well, although the economies over our so-called cottage industry style have not been striking. Whether quality care could continue without the competition of private medicine is an unknown question.

Of the two systems noted above, I, as a patient, would greatly prefer the former, as being at once cheaper in the long run, and giving me valuable control over my medical care. And I think if national health insurance were to come about Senator Kennedy might feel the same way and probably would not patronize his neighborhood clinic. (This is a presumption on my part however, and were Senator Kennedy to reassure me to the contrary, my confidence in the sincerity of his senate advocacy of such would blossom!)

In summary, the chief reason for the skyrocketing cost of medicine from $42 billion to almost $140 billion in the last 10 years has been the rise in the cost of medical technology, and of increased utilization of services. Our traditional commitment to provide all possible support to the life and health of our patients has seized this technology eagerly, bolstered by the intellectual satisfaction of technical and scientific beauty. The result has been a greatly disproportionate rise of costs over the improvement in savings of lives and pain. We will be forced to abandon the principle of providing all possible services. Hard choices will be made not traditionally within the physician's orientation. Which of the millions of eligible males in the United States should have coronary bypass? All? Only those in whom benefit would be striking? None? I submit again that the best decisions would not be made by administrative edict, but by designing the system so that conscientious physicians are appropriately motivated to distribute services in accordance with practical medical necessity and benefit. Since the economically important choices are made in everyday office practice rather than on the endstage kidney patient, a good start might be to eliminate health insurance for routine medical care in much the same way we do not insure ourselves against our grocery bills or our furnace repairs. The effective use of significant deductibles for hospitalizations, and the provision of insurance against catastrophic illness on a sliding income-related scale of cost would together provide substantial savings over our present system and yet prevent citizens going without care for a lack of financial ability.

Could doctors be trusted to administer such program? National polls still say that the majority of people trust their individual physicians, considerably more so than they do most other professionals, although they may have a problem with the actions of organized medicine. Whatever happens, I dearly hope as I get into my geriatric period that I still have available my own physician, that he cares that I have chosen him, and that he wants to be my physician. These intangibles make all the difference between good and poor medicine but are somehow not very intelligible to our health planners, who somehow feel that medical care can be merchandized like dog food. Lengthy notes in the medical record, or multiple tests do not signify good medical care; caring does. We have little enough of this at present and further depersonalization of our system is exactly what we don't need. □

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COMMISSIONER'S PAGE

Francis S. L. Williamson
Commissioner
Department of Health and Social Services

There appears to be an epidemic of alcohol abuse and alcoholism in Alaska. Recent studies completed by Dennis Kelso, Ph.D., for the State Office of Alcoholism, show that alcohol is readily available and relatively cheap, and at the same time, per capita consumption is increasing, state costs are increasing, and increases are appearing in the reported rates of alcohol-related deaths.

Volume one of a five-part series of investigative research on alcohol abuse and alcoholism, available from the State Office of Alcoholism, shows that the price of beverage alcohol in Alaska has risen only three-tenths of one percent since 1970. The consumer price index on all other goods and services rose 41.2 percent during that same period. Research done in other countries seems to indicate that price is one of the main determinants of levels of per capita consumption.

Volume four of the same research series indicate that in Alaska, there is one "on-premise" retail beverage outlet for every 551 persons. This compares with a ratio of one such outlet for every 1,490 persons, on the average, in the lower 48. The same volume indicates that there is one "off-premise" outlet for every 990 persons in Alaska, as compared with a nationwide average of one such outlet for every 3,790 persons. Data from epidemiological studies in other countries identify sheer availability as one of the primary determinants of overall per capita consumption in any population.

Volume four of the research series also indicates that in Alaska during 1975, 4.54 gallons of absolute alcohol were consumed for every man, woman and child over the age of 18. The apparent per capita consumption rate in Alaska rose 80 percent from 1958 to 1975, compared to an increase of 36% in the United States during this same period. The implications of per capita consumption rates of this magnitude appear to bear a direct correspondence to the rates of alcohol-related mortality and morbidity in any population.

Francis S. L. Williamson

Epidemiologists in other countries posit the thesis that a relationship holds between the per capita consumption rates of beverage alcohol and the incidence of alcohol-related problems in much the same way as the rates of per capita consumption of tobacco are related to the incidence of certain cancers and other types of upper respiratory disease. Simply stated, the relationship is "the more the population drinks, the greater the numbers and types of alcohol-related problems will be in that population."

There appears to be good, but controversial, evidence that this relationship holds in spite of levels of per capita income, racial characteristics of the population, geographic location, meteorological conditions, or any of the other usual variables associated in our literature with the abuse of beverage alcohol. The theory suggests that "while it is true that certain levels of alcohol abuse and alcoholism can be expected to be present in a subgroup of any population because of psychiatric predisposition, physiogenic characteristics, cultural conflicts, societal problems, situational stress and so forth, there exists yet another determinant apart from these variables, which is that as more 'normal' persons consume more alcohol, in more places, on more occasions, in increasingly heavy amounts, additional members of any population will become alcoholics and alcohol abusers."

In many ways, this viewpoint has been anathema among American alcohol researchers. We still suffer from the failure of the overly moralistic experiment with prohibition that now generally precludes rational discussion of the relationships between the U. S. beverage marketing system, its relationship to per capita consumption, and the relationship between such consumption and the numbers and types of alcohol-related problems in our population. In many ways prohibition was the best thing ever to happen to the licensed beverage industry, since the industry is able to hang a moralistic "neo-prohibitionist" label on any person who wants to examine these relationships. As in the case of the cigarette manufacturers of America, the last thing the licensed beverage industry wants to witness is an irrefutable demonstration, in a public forum, of a substantive relationship between per capita consumption and alcohol abuse. If people drank less and on fewer occasions, the licensed beverage industry would realize lower per capita sales and therefore lower profits. I believe that it simply is not possible for our population to drink as much as it does, and in such increasing amounts, and hope for any reduction in current or future levels of alcohol abuse and alcoholism in Alaska.

Volume four of Dr. Kelso's work indicates that there are as many as 30,000 problem drinkers in Alaska, directly and adversely affecting thousands of other people. We know that in 1975 there were 3,772 arrests for operating a motor vehicle while intoxicated in this state, and that the average blood alcohol content of arrested drivers was .177 percent, nearly twice the legal limit. We know also that the reported rates of death by cirrhosis of the liver and deaths due to "alcoholism" have increased in the past few years, at levels that closely correspond to reported increases in per capita consumption of alcohol.

I think that these events can partly be accounted for by the apparent low price of beverage alcohol and its sheer availability in Alaska. I do not disagree that cultural conflict, isolation, stress, and individual physiological and psychological predisposition, as well as collective social agreement that heavy drinking is acceptable behavior, are also major determinants of alcoholism and alcohol abuse. I believe, however, that the problems of alcohol abuse cannot be divorced from considerations of opening hours, price, taxation, numbers of outlets per population, advertising practices, and apparent violations of existing liquor laws. There is too much evidence from other jurisdictions that these variables do indeed play a part in the creation of alcohol abuse and alcoholism in any population.

What are the implications of these considerations for health planning and health care delivery in Alaska? It seems that it would be entirely appropriate for regional health planning agencies to begin to do careful studies of the reported rates of alcohol abuse in their jurisdictions, and to examine as well the characteristics of their affected populations. It would also be appropriate for research to be done to determine whether there is a correspondence in any district of the state between the number of outlets, the relative price of beverage alcohol, and the numbers and types of alcohol-related problems reported in that same geographic area.

The only recent example in Alaska of what happens when availability of beverage alcohol decreases and price rises has been in the community of Bethel. We were told that when Bethel first voted to go "dry" two years ago, the following things happened. People could still purchase nearly unrestricted amounts of beverage alcohol for their own personal use by mail order and by telephone; therefore, no adult person in Behel was "prohibited" from private consumption. Nevertheless, the first visible impact of the dry vote in Bethel was that the number of police calls dropped from nearly 600 per month to about 125 per month; the number of admissions to the hospital dropped from about 300 per month to about 125 per month; and the projected number of foster home placements for abused and neglected children dropped from about 50 to 12. The problem indicators in Bethel have since inched back up to their earlier levels apparently due to the rise in bootlegging in the community. However, the people of Bethel generally agree that overall levels of abusive drinking are lower than they were previously. This agreement is reflected in the fact that the initial "dry" vote passed by a very narrow margin, while the second vote a year later passed by two-to-one, and the most recent annual vote passed by a margin of nearly three-to-one.

I certainly do not advocate that every community in Alaska vote itself "dry," as it would be unnecessary and unworkable. I do believe, however, that alcohol is both addictive and abusable. And it is so readily available and relatively cheap in Alaska that, taken together with the stresses of cultural conflict, personal and familial breakdown, isolation, physiological and psychological predisposition, and collective agreement that heavy use is acceptable, the price and availability of alcohol play a part in the creation of an alcohol abuse and alcoholism epidemic of major proportions in this state.

While education of the public, treatment of the casualties, improvement of living conditions, and economic development with its attendant improvement in job opportunities will all play a part in reducing future levels of alcohol addiction and abuse, it is my opinion that these factors alone will not be sufficient to reduce the epidemic to acceptable levels. According to some researchers, affluence may in fact promote drinking and contemporary social relationships often demand that a person not refuse a drink.

We are left, then, with some hard questions. How much alcohol abuse are Alaskans willing to tolerate as an acceptable by-product of our penchant for heavy consumption? What prices would we as a people be willing to pay for alcohol if we wish to have the user pay the bill for the public cost of abuse? Do we really need and want to have twice as many "on-premise" outlets and four times as many "off-premise" outlets as are available, on the average, for the rest of the country? If higher prices and reduced availability would reduce the per capita rate and that, in turn, would reduce alcohol abuse, should the health care community advocate such measures as reasonable public health preventive techniques?

It is estimated that alcohol abuse and alcoholism are presently costing the state general fund between $17 and $24 million per year. The tax revenues to the state from the sale and distribution of beverage alcohol only defray about $7.5 million of this cost. The rest comes out of every Alaskan's personal income tax, every Alaskan's share of nonrenewable resource taxes, and every Alaskan's share of the other taxes raised by state government. Therefore, it is not a question of whether we want to pay for the abuse problem, but how, and ultimately, how much?

It is my intent to raise these issues as public health, safety, and economic issues — not, as some have charged, to become the moralistic conscience of Alaskans. In my mind these are not moral issues, but rather should be analyzed and discussed in the same light as any other epidemic disease entity, objectively, dispassionately, and with careful attention to the facts. It is my hope that the health care community in Alaska will pay serious attention to these issues in the months to come.

Copies of the research done by Dr. Kelso are available on request from the State Office of Alcoholism, Pouch H-05F, 210 Ferry Way, Juneau 99811. □

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*INDICATIONS. Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

Effective: Management of nausea and vomiting and dizziness associated with motion sickness.

Possibly Effective: Management of vertigo associated with diseases affecting the vestibular system.

Final classification of the less than effective indications requires further investigation.

CONTRAINDICATIONS. Administration of Antivert (meclizine HCl) during pregnancy or to women who may become pregnant is contraindicated in view of the teratogenic effect of the drug in rats.

The administration of meclizine to pregnant rats during the 12-15 day of gestation has produced cleft palate in the offspring. Limited studies using doses of over 100 mg./kg./day in rabbits and 10 mg./kg./day in pigs and monkeys did not show cleft palate. Congeners of meclizine have caused cleft palate in species other than the rat.

Meclizine HCl is contraindicated in individuals who have shown a previous hypersensitivity to it.

WARNINGS. Since drowsiness may, on occasion, occur with use of this drug, patients should be warned of this possibility and cautioned against driving a car or operating dangerous machinery.

Usage in Children: Clinical studies establishing safety and effectiveness in children have not been done; therefore, usage is not recommended in the pediatric age group.

Usage in Pregnancy: See "Contraindications."

ADVERSE REACTIONS. Drowsiness, dry mouth and, on rare occasions, blurred vision have been reported.

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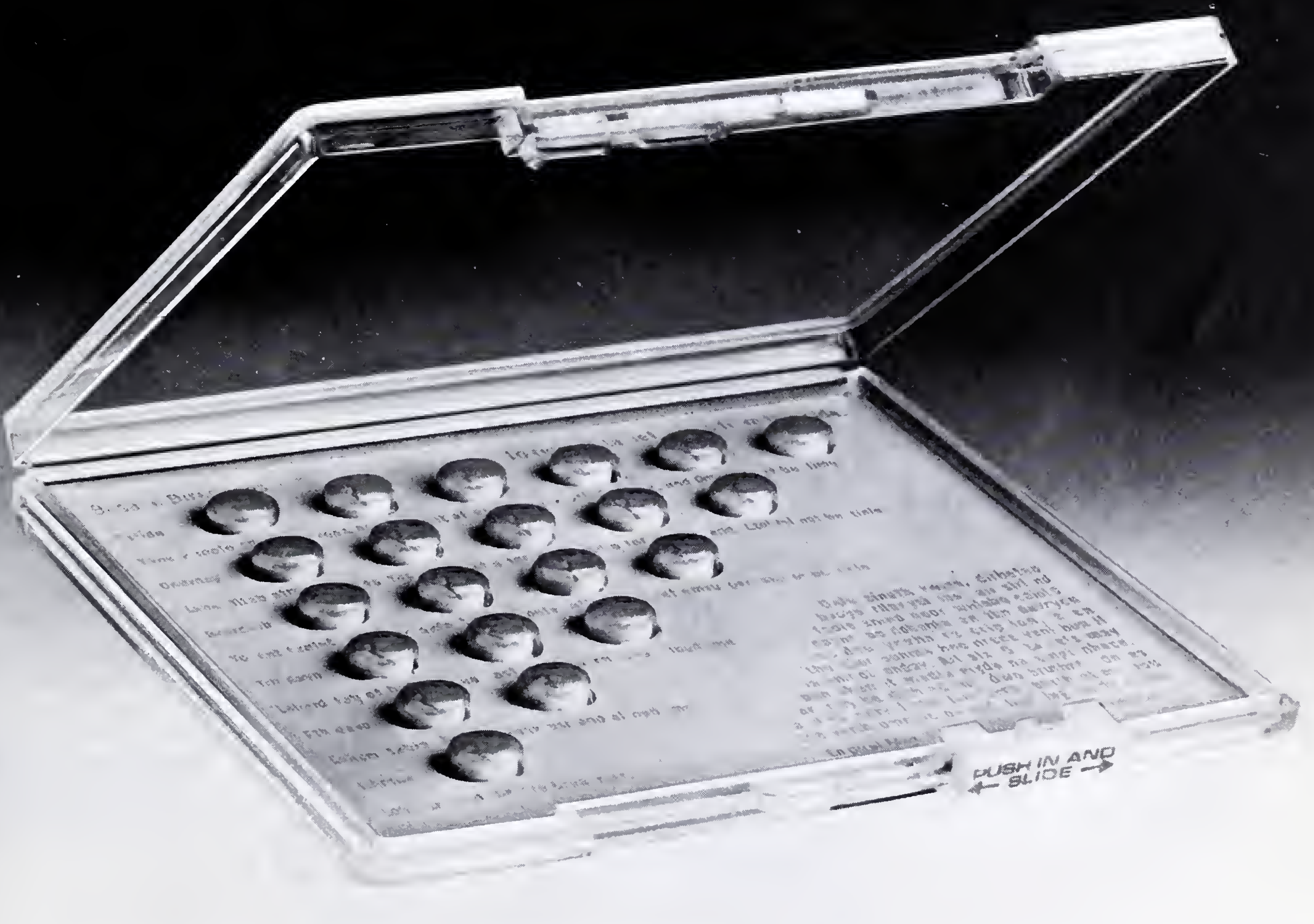

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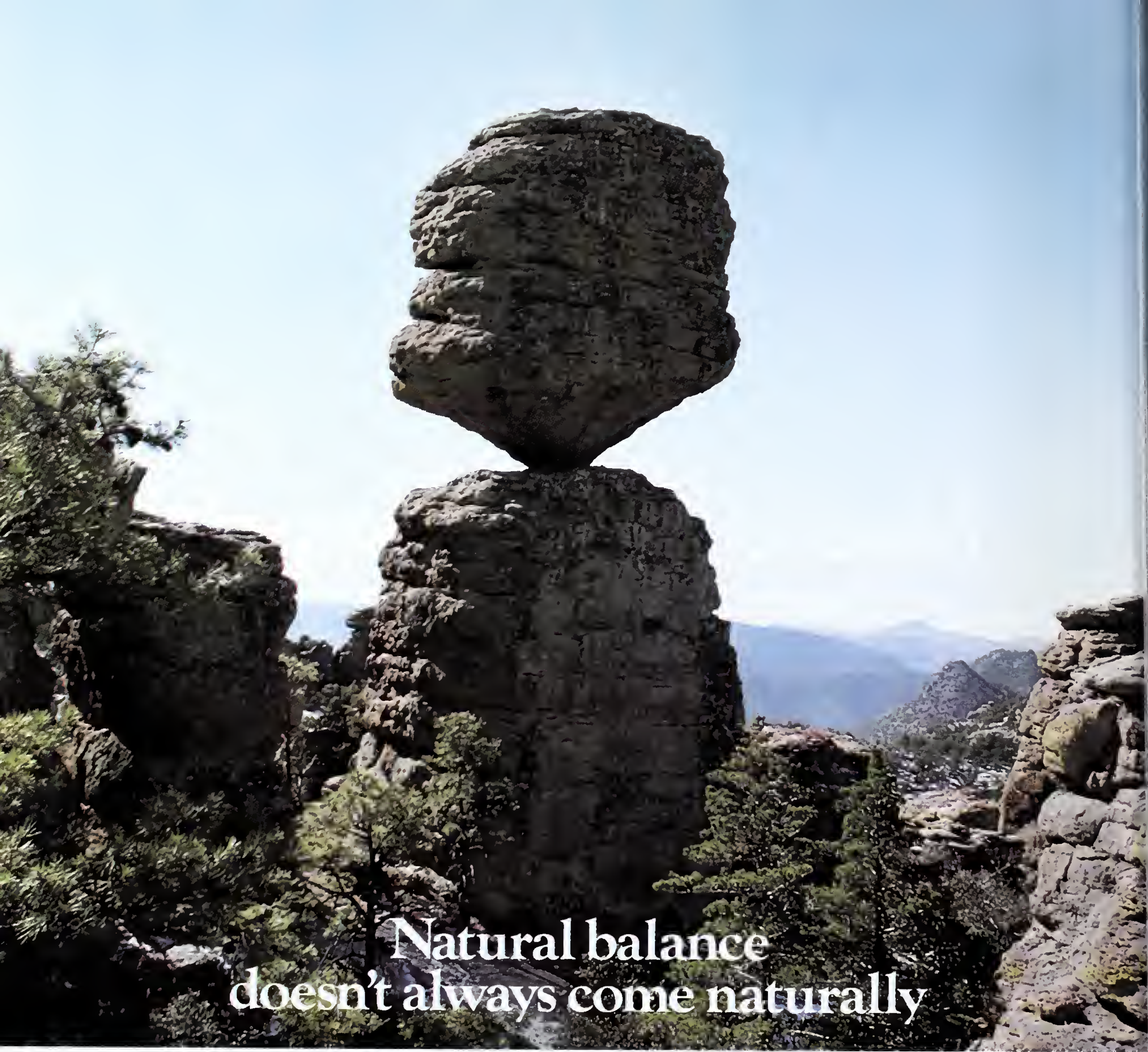

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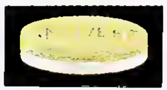

NORTHERN HIGHLIGHTS — 28

SELECTED ABSTRACTS ON MEDICINE AND PUBLIC HEALTH IN THE NORTH

Cancer

Lanier, A. P.; Bender, T. R.; Blot, W. J.; Fraumeni, Jr., J. F.; Hurlburt, W. B.

Cancer incidence in Alaska Natives. *Int. J. Cancer 18:*409-412, 1976.

This paper is the first attempt to determine the incidence of cancer by sex and race in all Alaska Natives. The authors are associated with the Center for Disease Control, the National Cancer Institute, and the Alaska Native Medical Center.

The study covers the period 1969-73. Confirmed cases of cancer were identified from hospital discharge diagnoses for the Alaska Native hospitals, the pathology file and tumor registry at the Alaska Native Medical Center, from the W/ARMP Tumor Registry, and from death certificates. Expected numbers of cancer cases in Natives were derived from incidence for Connecticut 1966-68, and using the 1970 census.

During the period under study, 347 newly diagnosed cancers were identified in Alaska Natives, 189 in males and 158 in females. The numbers in both sexes were significantly lower than expected based on the Connecticut rates. In Eskimos and Indians, more new cases were diagnosed in males than in females; in the Aleuts, more female cases were diagnosed.

Nasopharyngeal cancer had the greatest increased risk in both sexes. This was the fifth most common tumor in males and accounted for five per cent of cancers in this group. All were epithelial in type.

Six of seven parotid gland cancers were in Eskimos. An increased risk of liver cancer was also seen in Eskimos. Indians and Eskimos were both at higher risk for cancer of the gallbladder and extrahepatic ducts; with most of the former being in Eskimos and all of the latter being in Indians. Thyroid cancer risk was increased in all three Native groups.

Significant deficits in incidence were noted for melanomas and cancers of the larynx, prostate, and buccal cavity. The previously reported increase in female esophageal cancer was not confirmed by this study.

Cancer of the colon and rectum has apparently risen sharply in recent years, as has lung cancer.

The ratio of cancer diagnoses to deaths was 1.4 for Alaska Natives compared with 1.8 for the total United States, suggesting that possibly not all cancer cases were identified.

Blot, W. J.; Lanier, A.; Fraumeni, Jr., J. F.; Bender, T. R.

Cancer mortality among Alaska Natives, 1960-69. *J. Natl. Cancer Inst. 55:*547-554, 1975.

This study presents an analysis of cancer deaths in Alaska Natives for the period 1960-69. Tabulations of cancer deaths were obtained from listings maintained by the National Center for Health Statistics, by age, sex, race, and cause. Expected numbers of cancer deaths in Natives were derived from the 1960-69 mortality of two reference populations: the Indians of the United States, and the Caucasian population. Standardized Mortality Ratios (SMR's) were then computed for each site.

A total of 321 cancer deaths were recorded for Alaska Natives during the period under study. The 174 males and 147 females were not significantly different from the expected numbers based on the U. S. Caucasian population, but were significantly higher than the numbers derived from the Indian population.

Age-specific mortality rates for all cancers were generally higher for Alaska Natives than for Alaska Caucasians, especially in the middle decades.

As for specific sites, nasopharyngeal cancer showed a tenfold excess for male and female Natives over U. S. Caucasians and Indians. Other sites with relatively high mortality rates for Natives included the kidney, esophagus, and salivary glands. Cervical cancer mortality was high compared with that of U. S. Caucasians but not with that of U. S. Indians.

Tumors with a relatively low comparative mortality included those of the ovary, breast, and brain. Lung cancer was low compared with Caucasians but high compared with Indians. Prostate cancer was low for the whole Native group but high in Alaska Indians.

In general, cancer mortality was higher among Aleuts and lower among Eskimos.

The most striking mortality comparisons were in nasopharyngeal cancer. Ten deaths occurred from this cancer, all between the ages of 43 and 76. Rates for Aleut males were especially high. An environmental influence should be especially investigated in this regard.

The unusual patterns of Alaska Native cancer deaths need to be studied more thoroughly, and may provide clues toward the etiology of cancer in that and other populations.

Schaefer, O.; Hildes, J. A.; Medd, L. M.; Cameron, D. G.

The changing patterns of neoplastic disease in Canadian Eskimos. *Can. Med. Assoc. J. 112:*1399-1404, 1975.

This paper presents a study of 180 histologically proved cases of cancer in Canadian Eskimos. The authors are with the Charles Camsell Hospital in Edmonton, the University of Manitoba in Winnipeg, and the Montreal General Hospital.

The cases reviewed here were derived from patient records at the above referral hospitals, from cancer registers, and from Northwest Territories death certificates. The period covered is 1949 to 1974.

Lung cancer was the most common site, comprising 33 cases out of 180. Bronchogenic carcinoma was equally prevalent in males and females. Cancers of the salivary glands, nasopharynx, and cervix were also prominent.

The frequency of cancer varied widely with geographical areas. Nasopharyngeal cancers were approximately equal in incidence in the eastern and western Arctic. Lung and salivary gland tumors, however, seemed unusually prevalent in the central Arctic.

Overall, the excess in cancer mortality among the Eskimos in certain age and sex groups is impressive: for women 45-64 years old in the central Arctic, it is five times that of all Canadians.

Over time there has been a notable shift in the types of prevalent cancers. In the earlier period, cancers of the kidney and salivary glands were prominent, but now they have given place to cancer of the lung and cervix.

Nasopharyngeal cancer has remained prevalent throughout.

Little is known about possible etiological factors. The authors speculate that certain environmental factors, such as smoke, tobacco, foods and cold each may play a part.

Breast cancer was unusually infrequent, with only one case in the 25-year period of the study, when 10 would be expected. This finding may be related to the long period during which Eskimo women commonly breast feed.

Masse, S. R.; Glazebrook, G. A.

Kaposi's sarcoma in an Eskimo. *Can. Med. Assoc. J. 111:*809-811, 1974.

This brief paper is the report of a case of Kaposi's sarcoma in an Eskimo suffering from a squamous cell nasopharyngeal carcinoma. The authors are with the W. W. Cross Cancer Institute in Edmonton, Alberta.

Kaposi's sarcoma has been described most commonly in tropical areas such as central Africa. The present patient was a 46-year-old Eskimo who had spent his entire life north of 60° latitude. He came to notice because of an apparently unrelated cancer, for which he was given a month of cobalt irradiation. Two months later he developed multiple subcutaneous nodules over the upper and lower extremities. The nodules varied from 2-20mm in diameter, reddish-purple in color and adherent to the epidermis.

Several of the lesions were biopsied. The histological patterns from different sites were markedly varied. Many mitotic figures were seen, and new nodules appeared rapidly.

One area of the body was exposed to 500-1000 rads to see if the tumors were responsive. Since they were not, the patient was treated with intravenous vinblastine sulfate, for a total of 40mg. The patient subsequently died from cerebral edema secondary to the nasopharyngeal tumor invading the base of the skull.

This case is apparently the first ever described in an Eskimo.

Spitzer, W. O.; Hill, G. B.; Chambers, L. W.; Helliwell, B. E.; Murphy, H. B.

The occupation of fishing as a risk factor in cancer of the lip. *N.E.J.M. 293:*419-424, 1975.

This paper examines the role of commercial fishing in the incidence of cancer of the lip. The authors are with McMaster University in Hamilton, Ontario, and Memorial University, St. John's Newfoundland.

The complex study design involved a case-control study and a cohort analysis carried out among the people of Newfoundland. Census data, cancer registry data, and the results of an extensive household survey were linked.

Fishermen were found to develop cancer of the lip 1.5 times more often by the case-control method and 4.4 times more often by the cohort analysis method, as compared with other males. Both differences were statistically significant.

In addition to the known risk factors of pipe-smoking, "outdoorness" and age, fishing as an occupation added a separately identifiable risk to the development of lip cancer. Surprisingly, using the mouth as a "third hand" in handling tarred nets seemed to have a protective effect. No specific work activity was identified as a causative factor, nor could a carcinogen be found.

More cancer registries should include accurate data on occupational status so that expensive surveys would not be needed to determine possible occupational hazards.

Robert Fortuine, M.D.

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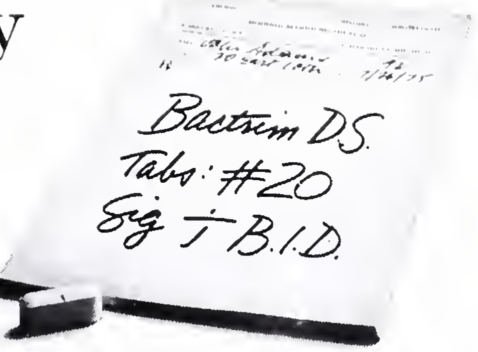
ıtperforms 10-day
npicillin therapy.



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nulticenter, double-blind study of patients with
nic or frequently recurrent urinary tract infection,
rim 10-day therapy outperformed ampicillin
ay therapy by 27.2%, when comparing patients
maintained clear cultures for eight weeks.
rion for "clear culture" was 1000 or fewer organ-
/ml of urine.

While adverse reactions noted in this study were
(*e.g.*, vomiting, nausea, rash), more serious reac-
can occur with these drugs. See manufacturer's
uct information for complete listing. Maintain
uate fluid intake; perform frequent CBC's and
lyses with microscopic examination.

Bactrim tablets were used in these clinical trials. Bioequiv-
/ studies show one Bactrim DS double strength tablet is
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r chronic or frequently recurrent cystitis
d pyelonephritis due to susceptible organisms.

prescribing, please consult complete product information, a
ary of which follows:

tions: Chronic urinary tract infections evidenced by persistent
iuria (symptomatic or asymptomatic), frequently recurrent infec-
(relapse or reinfection), or infections associated with urinary
complications, such as obstruction. Primarily for cystitis, pyelo-
itis or pyelitis due to susceptible strains of *E. coli, Klebsiella-*
obacter, Proteus mirabilis, Proteus vulgaris and *Proteus*
anii.

: The increasing frequency of resistant organisms limits the use-
ss of antibacterials, especially in these urinary tract infections.
ecommended quantitative disc susceptibility method (*Federal*
ter, 37:20527-20529, 1972) may be used to estimate bacterial
ptibility to Bactrim. A laboratory report of "Susceptible to tri-
oprim-sulfamethoxazole" indicates an infection likely to respond
ctrim therapy. If infection is confined to the urine, "Intermedi-
usceptibility" also indicates a likely response. "Resistant" indi-
that response is unlikely.

aindications: Hypersensitivity to trimethoprim or sulfonamides;
ancy; nursing mothers.

ngs: Deaths from hypersensitivity reactions, agranulocytosis,
tic anemia and other blood dyscrasias have been associated
sulfonamides. Experience with trimethoprim is much more
d but occasional interference with hematopoiesis has been re-
d as well as an increased incidence of thrombopenia with pur-
in elderly patients on certain diuretics, primarily thiazides.
throat, fever, pallor, purpura or jaundice may be early signs of
us blood disorders. Frequent CBC's are recommended; therapy
d be discontinued if a significantly reduced count of any formed
element is noted. **Data are insufficient to recommend use in in-**
and children under 12.

utions: Use cautiously in patients with impaired renal or hepatic
ion, possible folate deficiency, severe allergy or bronchial
na. In patients with glucose-6-phosphate dehydrogenase defi-
y, hemolysis, frequently dose-related, may occur. During ther-
naintain adequate fluid intake and perform frequent urinalyses,
careful microscopic examination, and renal function tests, par-
rly where there is impaired renal function.

se Reactions: All major reactions to sulfonamides and trimeth-
are included, even if not reported with Bactrim. *Blood dys-*
s: Agranulocytosis, aplastic anemia, megaloblastic anemia,
bopenia, leukopenia, hemolytic anemia, purpura, hypopro-
binemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for children under 12. Usual adult dosage: 1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days.

For patients with renal impairment:

Creatinine Clearance (ml/min)	Recommended Dosage Regimen
Above 30	Usual standard regimen
15-30	1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) every 24 hours
Below 15	Use not recommended

Supplied: Double Strength (DS) tablets, each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100. Tablets, each containing 80 mg trimethoprim and 400 mg sulfamethoxazole — bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40, available singly and in trays of 10.

Oral suspension, containing in each teaspoonful (5 ml) the equivalent of 40 mg trimethoprim and 200 mg sulfamethoxazole; fruit-licorice flavored — bottles of 16 oz (1 pint).

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Bactrim was 27.2%* more effective than ampicillin in keeping patients infection-free for 8 weeks.†

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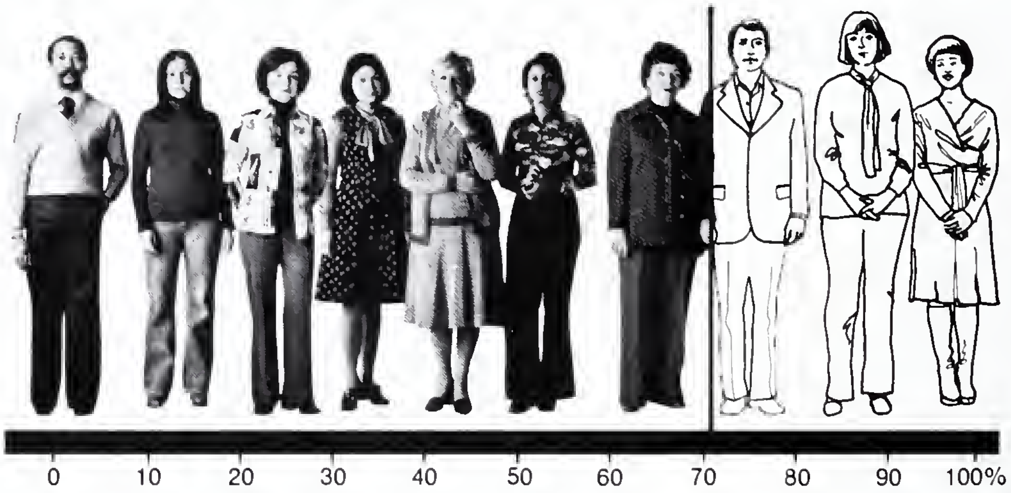
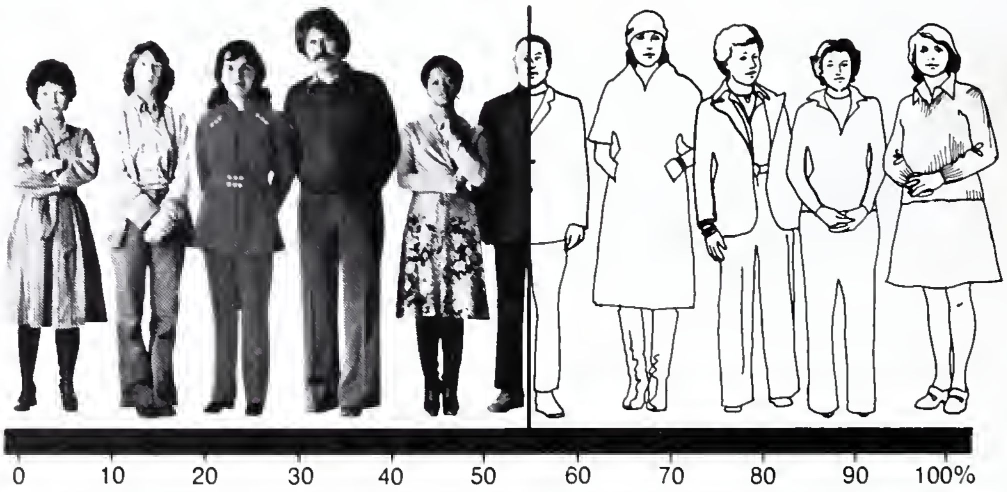


Bactrim–70.5% of 78 patients infection-free at 8 weeks.



ampicillin–55.4% of 74 patients infection-free at 8 weeks.

*This percentage is arrived at by the statistical method of dividing the difference between Bactrim and ampicillin results (15.1%) by the percent of ampicillin results (55.4%).

†Data on file, Hoffmann-La Roche Inc., Nutley, New Jersey 07110

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Note: Bactrim tablets were used in these clinical trials. Bioequivalency studies show one Bactrim DS double strength tablet is equivalent to two Bactrim tablets.

ALASKA MEDICINE

Volume 19, Number 3

May 1977

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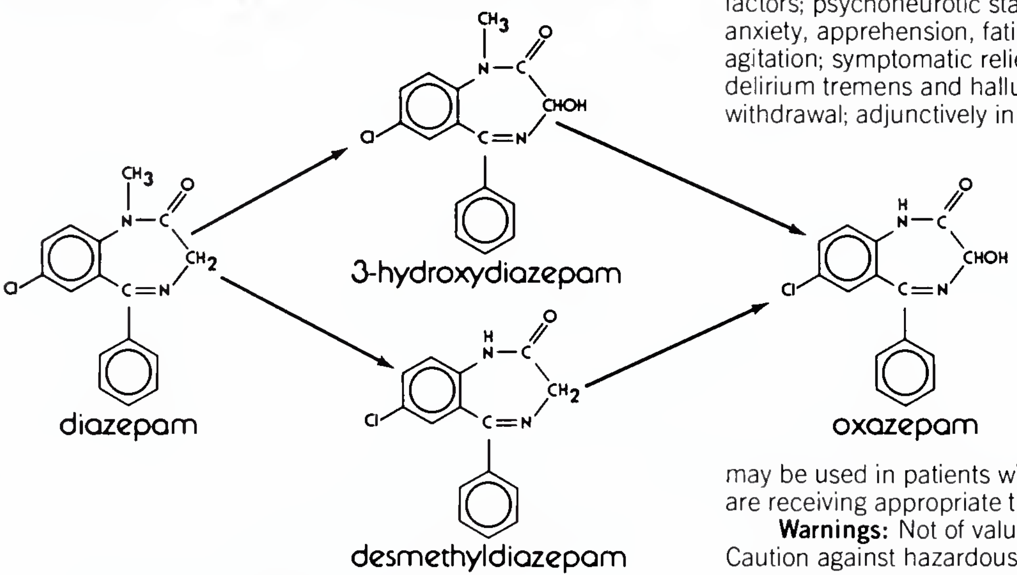
A pharmacokinetic character all its own



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Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

Usage in Pregnancy: **Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

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ALASKA MEDICINE

Official Journal of the Alaska State Medical Association

1135 Eighth Avenue, Suite 6, Anchorage, Alaska 99501

Volume 19 May 1977 Number 3

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Rainbow over Unalaska Harbor
by R. Fortuine

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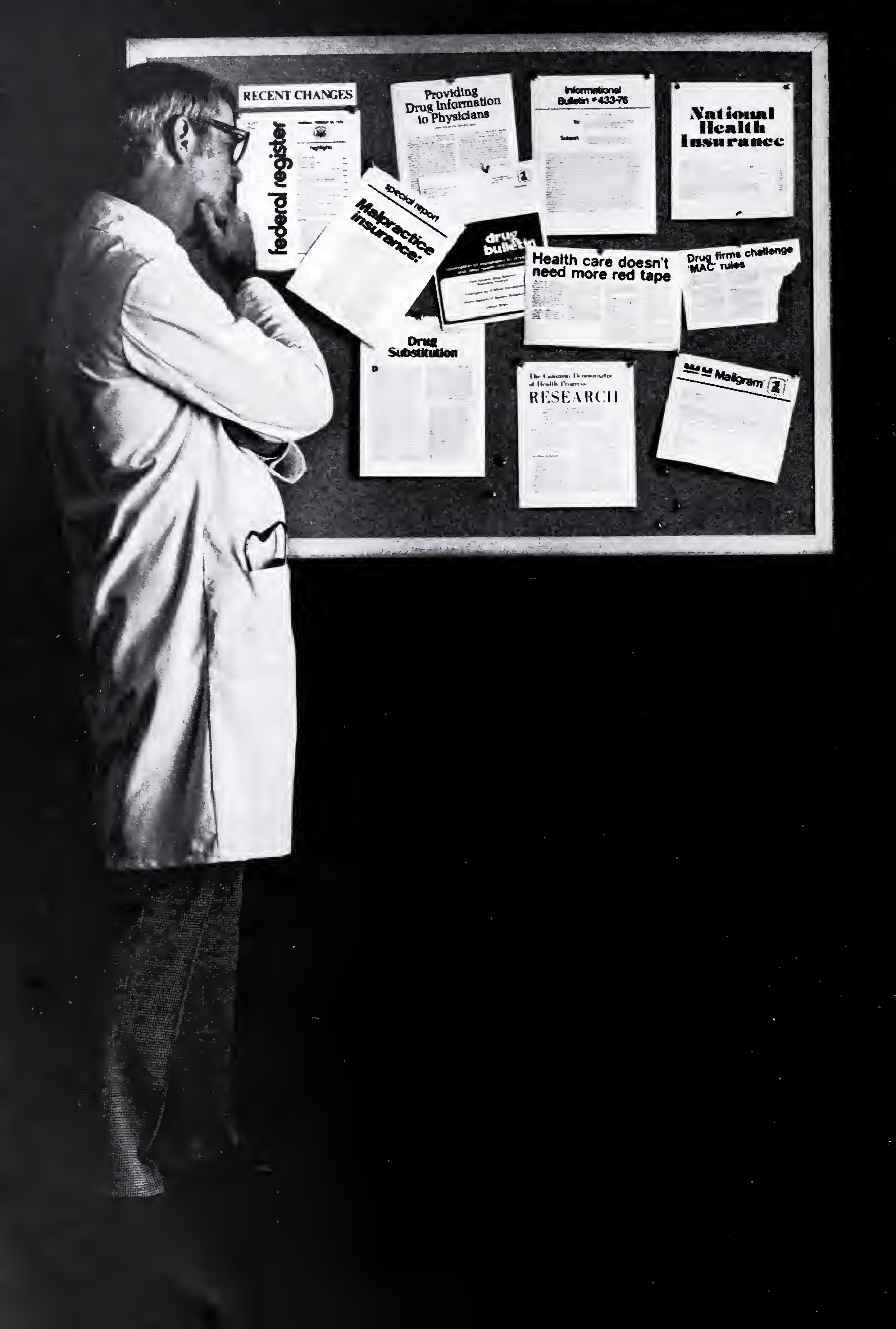
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THERE ARE A LOT OF PEOPLE GETTING BETWEEN YOU AND YOUR PATIENT.

Medicine today is in the spotlight, subjected to all inds of scrutiny. Your control over patient therapy is ing monitored, judged and occasionally abrogated, metimes by unknown third parties.

The worry is that in the wake of this focus, the rela-nship between you and your patient will be weakened, ithout offsetting benefits. Consider three examples:

Drug substitution In most states, pharmacy laws, gulations or professional custom stipulate that your n-generic prescriptions be filled with the precise prod-ts you prescribe. But in the last five years, a dozen or ore State laws have been changed, permitting the phar-acist in most cases to select a product of the same eneric drug to fill any prescription.

Ironically, this dilution of physician control has ken place against a background of growing evidence at purportedly equivalent drug products may be in-quivalent, since neither present drug standards nor their nforcement are optimal. In fact, the FDA itself says it s not enforced the same standards for hundreds of ollow-on" products that it had applied to the original DA approvals. Thus physician control over patient erapy is being eroded with a risk that patients may be posed to drugs of uncertain quality.

The major advertised claim for substitution is reduced escription prices for consumers. Yet no documentation any significant savings has been produced.

MAC Maximum Allowable Cost, MAC for short, is Federal regulation designed to cut the Government's rug bill by setting price ceilings for drugs dispensed to ledicare and Medicaid patients. Unless the prescriber ertifies on the prescription that a particular product is edically necessary, the Government intends to pay only r the cost of the lowest-priced, purportedly-equivalent, generally-available product. The effect of the program may be that elderly and indigent patients will be restricted to products which someone in Washington believes are priced right. Practicing doctors will have little to say about administration of the program, since Government will have absolute authority to make its choices stick.

The drug lag The future of drug and device research depends upon a scientific and regulatory environment that encourages therapeutic innovations. The American pharmaceutical industry annually is spending more than $1 billion of its own funds and evaluating more than 1,200 investigational compounds in clinical research. Disease targets include cancer, atherosclerosis, viruses and central nervous system disorders, among others. But there is a major barrier to the flow of new drugs to your patients: The cost of the research is more than ten times what it was, per product, in 1962; and whereas governmental clearance of new drug applications took six months then, it commonly consumes two years now.

The FDA needs adequate time, of course, to consider data. But it is equally clear that the present approval process contributes to needless delay of needed therapy. That's why the increased efficiency of the drug approval process is vital to all our futures.

If these issues concern you, we suggest that you make your voice heard—among your colleagues and your representatives in State legislatures and in Washington.

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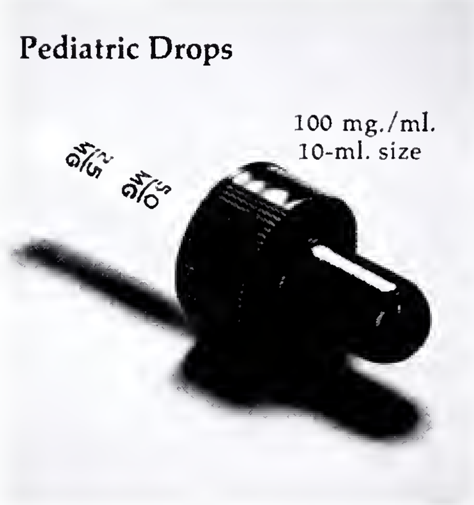

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AN OVERVIEW OF ALASKAN PSYCHIATRY

1. The Early Years

J. Ray Langdon, M.D.

At the 1956 meetifng of the North Pacific Society for Neurology and Psychiatry, I believe at Seaside, Oregon, I first met some of you. On the last day of the meeting, about 4 p.m., the newly formed North Pacific District Branch of the American Psychiatric Association met in a closet or something, well out of the way of the more important neurologists and neurosurgeons. In March of that year I had started as Medical Director of Morningside Hospital in Portland.

If it appears that there is excessive use of the pronoun "I," in this presentation, it is because I appeared at the transitional period in psychiatry in Alaska and have been involved in the developments since. The finding of oil on the Kenai Peninsula in 1957 and the advent of statehood in 1959 were to make dramatic political and social changes in Alaska. Thus the development of medicine and psychiatry has been continually challenged to keep pace with the changes which have continued with the Great Earthquake of 1964, Fairbanks floods of 1967, proven North Slope oil discovery in 1968, and the present pipeline building.

Prior to the Gold Rush of 1898, there is little recorded as to the treatment of mental illness, at least by Westerners. This paper does not attempt to deal with shamanism or other practices of the Eskimos, Aleuts, and Indians, but there are fascinating studies of these also. Prior to 1946, to my knowledge, no psychiatrist resided in the territory though some may have been stationed with the military during World War II. Thus, from the 1890's until midcentury the only treatment facility for Alaskans was Morningside Hospital in Portland. This hospital was founded in the 1880's as a private asylum, accepted occasional Alaskan patients after 1900, and became the only contractor from 1904 until 1962. Its character changed from a private hospital to that of a typical state hospital as it gave up private patients and took exclusively Alaskan patients. Incidentally, the contract for the Alaskan patients was not with the Territory of Alaska but the Secretary of the Interior.

Originally, the staff consisted of the founder, Doctor Henry Coe. As times changed, the hospital sometimes employed the psychiatrist and sometimes the Department of the Interior did. At the time I arrived the hospital had its own psychiatrist and the Department of the Interior also had one to oversee the other, a rather wasteful setup.

The commitment laws were frightful. They were originally passed by Congress in 1900, and despite occasional amendments were not substantially changed until 1957. Patients were apprehended by the U. S. Marshals (then the police force of the territory), transported by them, committed by a territorial federal judge with no requirement for any medical evaluation — much the same procedure as for a criminal. Upon being found mentally ill, the person was also automatically incompetent and thus lost practically all civil rights — permanently, too, as there was no mechanism for restoring them. This situation was among the various injustices cited as reasons for statehood, a movement which grew rapidly after World War II, although it had begun much earlier.

Although there had been part-time Commissioners of Health since 1931, the Territorial Department of Health got its first full-time Commissioner in 1946, and soon after he instituted a Section of Mental Health. There followed a series of visitation, investigations, public

---

Dr. Langdon is founder and Director of the Langdon Psychiatric Clinic, Inc., in Anchorage. This paper was presented November 1, 1976, to the American Psychiatric Association, Canadian Western District Branch, at Victoria, B. C.

hearings and reports, including those of Doctors Winfred Overholser, Henry Schumacher, and the last major one in 1957, Karl Bowman. Most of these, except the last, cited deplorable conditions at Morningside, the long distance from Alaska, the terrible commitment law and the total lack of treatment facilities and personnel in Alaska. As an example, prior to regular large airplane service, persons committed in Nome in the fall or winter had to be kept in jail until the ice broke enough to get a ship in, often June. The Parran Report on Alaska's health in 1954, a landmark document, devoted most of its attention to tuberculosis, but still commented at length on the mental illness situation.

There were attempts to change the commitment laws in Congress by inserting the then model mental health act. This provoked a vast outpouring from the radical right which at times produced some very funny testimony. The fabled Finn twins were there as well as many others of the proto-Birch group. The offending section was the interstate compact whereby patients can be transferred to be near their family if appropriate. Thus the term Siberia, U.S.A. came into being — it was widely felt by the rightists that this was a front for a concentration camp for political prisoners. As recently as 1968, a missionary physician from a fundamentalist group (he has since become a psychiatrist) told me he personally had to charter a plane and fly over Alaska Psychiatric Institute and take pictures so that his sect would believe it was really in Anchorage and not on the North Slope.

Eventually Congress backed off from this onslaught and did not pass the model mental health act. However, it did pass a law enabling the Territory to pass its own mental health laws (an authority which Hawaii had had since it became a Territory). The Territorial Legislature promptly passed the model mental health act with some modifications for Alaska, and in February 1957 Alaska finally had its own mental health authority and the possibility for developing its own treatment facilities. In addition to granting the authority, Congress had also allotted funds for construction and operation of a mental hospital and took the Interior Department out of the psychiatric business. Morningside thus, after 53 years of contracting with the Federal Government, contracted with the Territory and State of Alaska for the rest of its existence. Its old site now includes a shopping center and a sectarian academy.

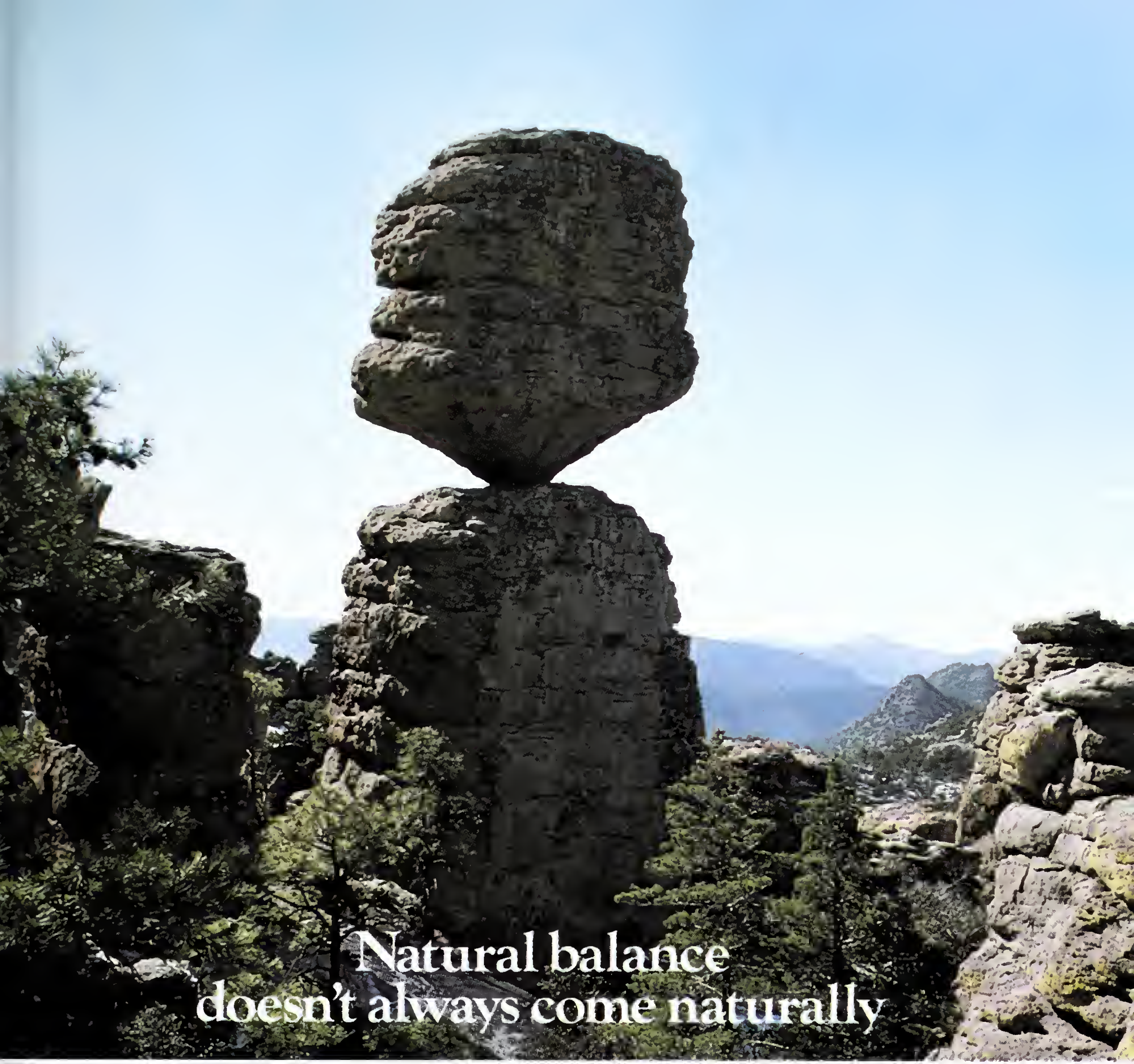
As often happens in psychiatry there were witch hunts, and Morningside was the object of some. There were federal Congressional Hearings there in 1955 and 1957 — a distinction state hospitals do not usually attain. I was there for the 1957 hearings (which took place after Alaska had taken over the contract) and was subjected to a year of General Accounting Office snooping as well as a week of public hearings. After nearly 20 years, the whole thing seems funny and even ridiculous, but at the time it was pretty tension-producing. Nothing was accomplished except to stir up emotions.

I mentioned earlier that no psychiatrist was a resident of Alaska before 1946. At that time Doctor Virginia Wright O'Malley, the wife of a general practitioner, moved there. Doctor Wright, which was her professional name, still lives in retirement in Anchorage. She practiced and was quite influential in mental health development, but as the mother of nine children, she was necessarily a part-time practitioner. The Territorial Government had a couple of psychiatrists in the early '50s, whose function was mainly to plan and lobby for the eventual Territorial mental health takeover.

The next psychiatrist in private practice and the first one full-time was myself. After two years at Morningside I came to Alaska in 1958 as Assistant Chief of the Section of Mental Health, with the specific charge to develop the mental hospital and develop outpatient programs in western Alaska. Then followed a series of political maneuvers which I regarded as intolerable and thus resigned from State service in March 1960, and, after some deliberation, entered private practice. A military psychiatrist also entered private practice that year, but left a couple of years later. Our first semi-homegrown psychiatrist was our present District Branch President, Doctor Rader, who came to Alaska as a general practitioner in 1956, left for residency in 1959, and returned in 1962 to stay. After that the growth was slow as the next private practitioner came in 1966, the third in 1967, and the real surge in the 1970's.

Nevertheless there was growth in other ways. Having added a psychiatric social worker in 1960 and a clinical psychologist in 1962, I sort of became the Langdon Clinic and gradually expanded to our present size of nine professionals, which includes lexicotherapy as of 1966. Although the other psychiatrists did not immediately develop clinics, some have, since then, so that it is a well-developed practice now.

Because of the vast size of Alaska and lack of surface transportation and also because of our inveterate feeling that the state should be serviced somewhat, most of us have developed consultative roles in either the public or private sectors, which involves travel on either a regular or occasional basis to the outlying areas. When I arrived in 1958, we attempted to set up regular



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Effective: Management of nausea and vomiting and dizziness associated with motion sickness.

Possibly Effective: Management of vertigo associated with diseases affecting the vestibular system.

Final classification of the less than effective indications requires further investigation.

CONTRAINDICATIONS. Administration of Antivert (meclizine HCl) during pregnancy or to women who may become pregnant is contraindicated in view of the teratogenic effect of the drug in rats

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visits to the bush areas and the public clinics continued the efforts through the '60s though greatly hampered by lack of travel funds. As examples the Child Study Center, originally devised as a screening team for detection of mental retardation, made visits in the early '60s to Kodiak, Fairbanks, Sitka and other places, some of which now have resident professionals. After the passage of the Alaska Native Claims Settlement Act we assisted some of the Native corporations in developing their health and mental health divisions. During the first surge of the VISTA Volunteers in 1965, two of my staff assisted in training the new workers for over a year until the preliminary training was moved from the University of Alaska to Oregon.

As Alaska was part of the North Pacific Branch of the American Psychiatric Association and did not qualify even as a chapter for many years, I devoted my attention to the State Medical Association, where I was instrumental in setting up a Mental Health Committee of which I was Chairman for 10 years. It was during this period that the Attorney General sent Alaska State Medical Association a famous telegram which, in essence, said we should quit investigating and complaining about mental health and pay attention to tuberculosis or something important. He is now a Superior Court judge and has altered his priorities somewhat. In any case, anything psychiatric was done through Medical Association channels until the chapter was formed in 1970.

The United States Public Health Service, Indian Health Service, has a fairly ambivalent career in mental health and illness. The Bureau of Indian Affairs operated Native medical facilities until the Parran Report delineated the extent of the tuberculosis epidemic and brought Public Health Service into direct service in 1955. The Public Health Service specifically excluded mental illness from its purview as it is supposedly a State responsibility; however, the Anchorage Native Hospital did utilize non-Public Health Service psychiatric consultants from 1958 on and finally got its first full-time person in 1966. That person covered the entire Alaska area and that position has continued to the present. Since 1970 there have been additional psychiatrists from time to time and a continuing ambivalence about the Public Health Service's role. The overwhelming physical, mental, social and economic problems of the Natives may have contributed to this ambivalence.

By 1968 the pressure of patients dictated that the Langdon Clinic expand, especially as we had contracted with the Federal Government to see heroin addicts on a special program. Thus we grew to two social workers in 1968, two psychiatrists in 1969, three in 1970 plus an additional psychologist, and finally in 1971, to a total of four psychiatrists, two psychologists, and four social workers, plus our reading therapists and later the drug staff. □

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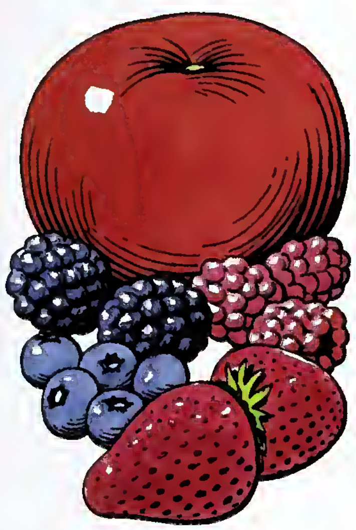

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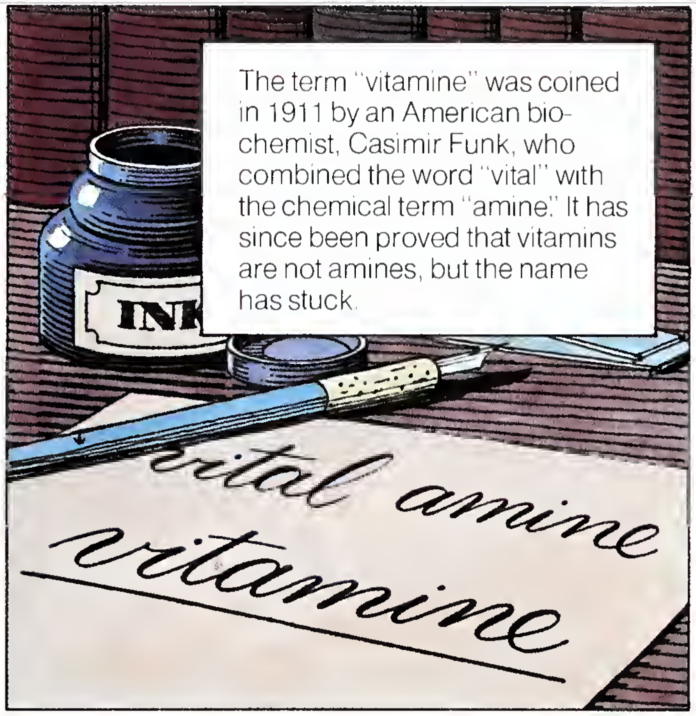

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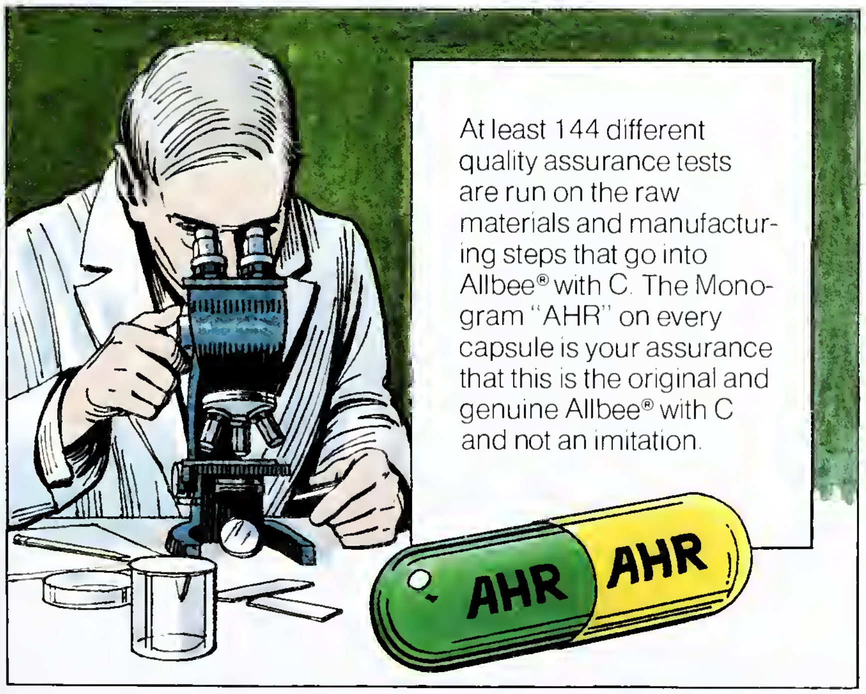

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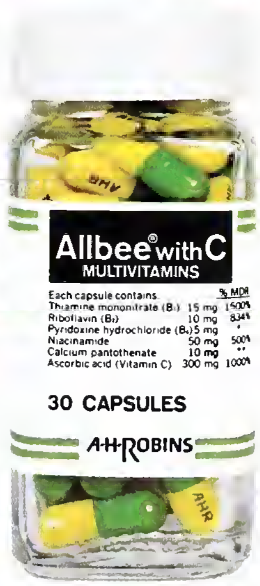

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AN OVERVIEW OF ALASKAN PSYCHIATRY

2. Current Trends

Aron S. Wolf, M.D.

As Doctor Langdon has indicated in the previous paper, psychiatry in Alaska got off the ground in fits and starts. What developed in the early and mid-1960's were several sets of systems that essentially served the same geographic areas. Each system acted as though the other did not exist and, indeed did not serve the same individuals. One system was the State Mental Health system. On paper this encompassed three regions, each with a regional clinic. The regional clinics were located in Juneau for the Southeastern Region, Anchorage for the Southcentral Region, and Fairbanks for the Northern Region. These clinics were supposed to serve not only the urban areas in which they were located, but also all of the rural and village areas within their geographic regions. Over the years, these clinics barely even served the urban areas in which they were located. There were regional psychiatrists some of the time in some of the clinics. It seemed, however, that the major functions of these clinics was to prescribe post-hospital medication for those patients that had been at Morningside and later the Alaska Psychiatric Institute. This, however, left really substantial gaps in the state system of delivery of any mental health services.

The second system was set up by the Public Health Service. This system consisted of a primary referral hospital in Anchorage and six smaller hospitals spread throughout the state. This system was designed to deal with the health care needs of the 55,000 Alaskan Eskimos, Indians and Aleuts. This system first came to have a psychiatric service in 1966. The first psychiatrist is our present partner, Doctor Joseph Bloom. His mission was to devise a system of mental health care delivery for all of the Native Americans in rural Alaska. He did devise a system using health aides and giving them basic training in mental health services. A plan was developed in which the field hospitals became staging areas for any problems that arose in the surrounding village areas.

The third system was that of the military in Alaska. The military presence in Alaska has always been of considerable importance. The three military services in Alaska have been functioning in a unified command for a number of years. Within this system, the primary facility for medical care became the large Air Force hospital in Anchorage. The psychiatric section of that hospital became the receiving hospital for any military personnel stationed anywhere in Alaska, their dependents and any retired personnel along with their dependents. It also functioned as the hospital for the State.

During the late 1960's there were two major Air Force bases, two major Army bases and two major Navy bases in Alaska. In addition, there were 40 Air Force sites scattered throughout the state and mainly used for communication, reconnaissance and the stationing of defensive weapons systems. These sites had from 35 to 1,000 men each and varied from moderately to totally isolated. Many, however, were adjacent to Native villages and essentially formed one community. One of the developments of the psychiatry department of the Air Force hospital was to set up a network with each of the bases and sites. The psychiatrists from the hospital visited the smaller hospitals at the other bases to consult with the other physicians there and also screened and interviewed all of the site com-

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Dr. Wolf is also a psychiatrist with the Langdon Clinic. This paper, as well as the preceding one, was presented to the Canadian Western District Branch of the American Psychiatric Association.

manders and site medics. This put these psychiatrists in constant touch with a potential population of 50,000 people statewide.

Once again this system functioned as though the others did not exist. The completeness and comprehensiveness of this system also varied according to the interest and training of these psychiatrists who were assigned to the Elmendorf Hospital.

This triple-headed system was, and is, wasteful and cumbersome. Each had its own central hospital as well as its own system of outreach. If one wanted to devise a system that would be most wasteful of resources, both human and monetary, to serve a small population in a large geographic area, they might devise what grew up in Alaska in the first 10 years after statehood.

As Doctor Langdon has mentioned, the private sector was really very small, serving the growing Anchorage Metropolitan area.

It is also interesting to note that only two small rural fishing communities took advantage of the National Legislation to fund Comprehensive Community Mental Health Centers. These were Ketchikan in Southeast and Kodiak Island. Both of these centers are still functioning seven years later.

The last six years have brought great changes to Alaska in terms of money, population, power shift and urban sprawl. Secondarily, of course, all of these factors have had an impact on the mental health of the population, and on how treatment has come to be delivered.

From the tiniest rural communities to the now sprawling Anchorage, one hears the lament that Alaska is not as it used to be. We are and have been in a multifaceted explosive period of change.

The first and perhaps in the long run most important change was the settling of the Native land claims. This was at the time related to the need for oil, because until the land claims were settled, the oil lands did not have clear ownership. In terms of health care, the Claims Settlement Act provided both money and land. Both the money and land went directly into 12 regional corporations. These corporations were to use the money in such a way as to generate further moneys and pay dividends and all of their stockholders, i.e., the Native Americans who lived in that geographical area. They were also allowed to spin off nonprofit arms which could and should become involved in health and social service-related issues.

Several of the corporations developed early and strong health arms. In Bethel and Nome they hired their own psychiatrists and mental health teams as early as 1972.

With the sale of the oil lease lands, the Treasury of the State of Alaska has enough money to begin to function adequately in the health fields and as a result developed a Community Mental Health Center Act that was state funded. It was less rigorous than the federal law in terms of the services that were required, and the thrust was that each community was to put together a plan that would meet the needs of that area. Funds to 75 per cent in terms of a grant would be provided with the remainder coming from the community itself. This began to be implemented in 1974 and there are now 17 such centers, big and small, in operation. Most of them have a psychologist as a director with several paraprofessionals and part-time psychiatric consultants. These centers literally reach from one end of the state to the other and are working in concert with the federal grants in Anchorage, Ketchikan and Kodiak and with the Native corporations in Bethel and Nome. In several other areas it is the local Native group that is the recipient of the grant, as is the case in Barrow. The development of these centers was designed to replace the old regional clinics, but this has happened only in Anchorage.

During these years the military presence in Alaska has become relatively less important. A number of bases and sites have been closed and they have reduced the strength of the psychiatric unit at Elmendorf so that really it is an emergency triage unit at this time.

The Psychiatric Service at the Alaska Native Medical Center has seen its job over the past several years to be a coordinator between the old P.H.S. systems of health care and the new systems of health and mental health care that were emerging from the local populations.

You might be wondering, at this point, what interest all of these systems would have for the private practitioners of psychiatry in Alaska.

The systems that I have described assume the availability of trained stable manpower. This, of course, is basically an illusion since you are talking about attracting psychiatrists to areas that are dark, cold and nonurban.

Because of this, the great majority of private practitioners have been involved as consultants and part-time personnel in all of these systems. The willingness and long-term availability over the years has allowed the private sector to be involved with psychiatry all over the state.

This has included involvements of various members of the private sector on local health boards and statewide advisory commissions. There has been a great use by the courts of the private sector in cases involving the determination of responsibility.

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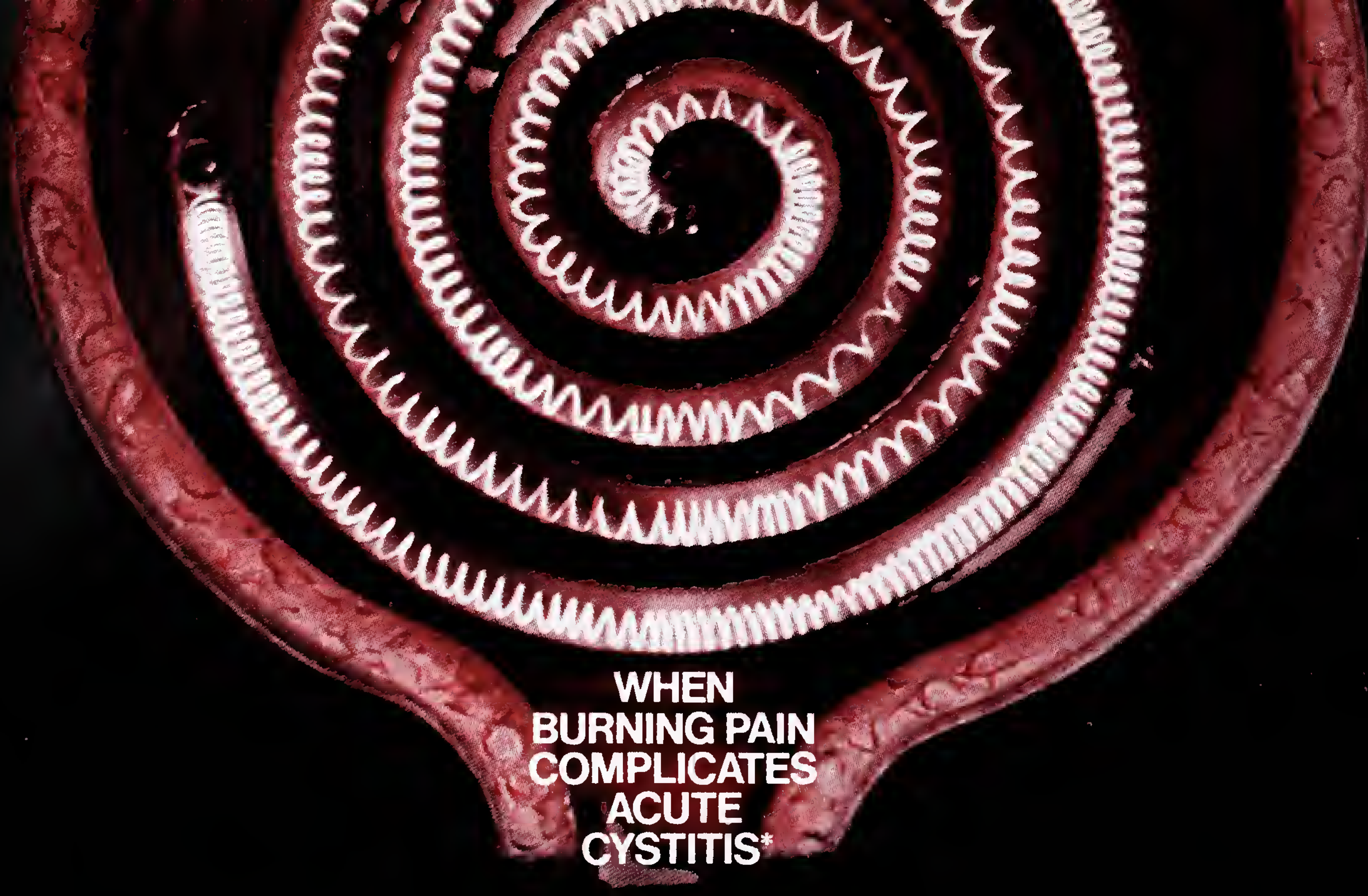

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gram. Through this program, several of us rotate in commuting to Fairbanks to teach freshman psychiatry and all of us are involved in the clinical unit for third- and fourth-year medical students and third-year residents. This involves us as clinical faculty members at the University of Washington and provides the stimulation of always having teaching responsibilities and the instructive, if sometimes, searching questions of students.

Because of our philosophical stance, we have become involved in hospital boards, Medial Association committees, Psychiatric Association committees and other outside community activities.

In all of this state of growth and flux, getting involved is not the problem. The needs and the change are very seductive. There is indeed more to do than anyone can possibly accomplish. For those of us who have chosen to stay, the role that we play will change with the years, but availability, flexibility and involvement must continue to be the keynote. □

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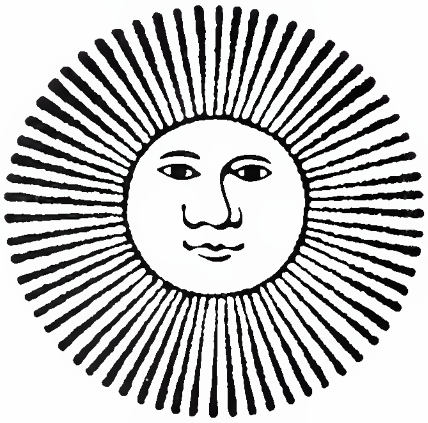

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HAIRY CELL LEUKEMIA: A REVIEW

D. I. Webb, M.D.

There have been numerous recent studies of the origin of the abnormal cell in hairy cell leukemia (HCL). The cell looks like a lymphocyte except for its ragged, "hairy," abundant cytoplasm (see Figure 1). The controversy is whether the hairy cell (HC) comes from lymphocytes or monocytes.

CASE REPORT

A 31-year-old Caucasian male surveyor came to The Alaska Clinic because of tiredness, sore throat and slight weight loss. His past history was negative: no infectious mononucleosis. On physical examination, he appeared chronically ill with normal vital signs. No lymph node masses were noted. The liver could not be palpated, but there was a firm, smooth, tender mass extending from the left costal margin to the iliac crest. Important laboratory data (see Table 1): uric acid 8.8mg %, acid phosphatase 0.92 sigma units (normal 0.13-0.63), leukocyte alkaline phosphatase 225 (normal 11-95), and total bilirubin 1.4mg %. The spleen scan showed massive enlargement. Bone marrow material could not be aspirated. Needle biopsy specimen showed hyperplasia (see Figure 2). The "touch" preparation showed hairy cells (Figure 3). The patient tolerated splenectomy without serious problems (Figure 4). The spleen weighed 22 pounds. He is asymptomatic 10 months after diagnosis and has shown no variation from the information we have on approximately 200 recognized cases (see Table 2).

TABLE 1. HEMOGRAM DATA

	Admission	After Splenectomy
Hemoglobin	8.4 gm %	13.3 gm %
Hematocrit	26%	41%
White cell count	2,200/mm^3	7,000/mm^3
Lymphocytes	67%	62%
Monocytes	0-2%	1%
Platelet count	37,000/mm^3	367,000/mm^3

DISCUSSION

The value of studying the derivation of the HC is that we might learn more of white cell function. For decades, lab technicians have assiduously counted out different kinds of white cells and clinicians have tried to relate variations of the counts to changes in a sick patient. This work has not been too fruitful. Occasionally, a "left shift" will push a surgeon into an appendectomy, but white cell differential in general is just not the same kind of useful information as

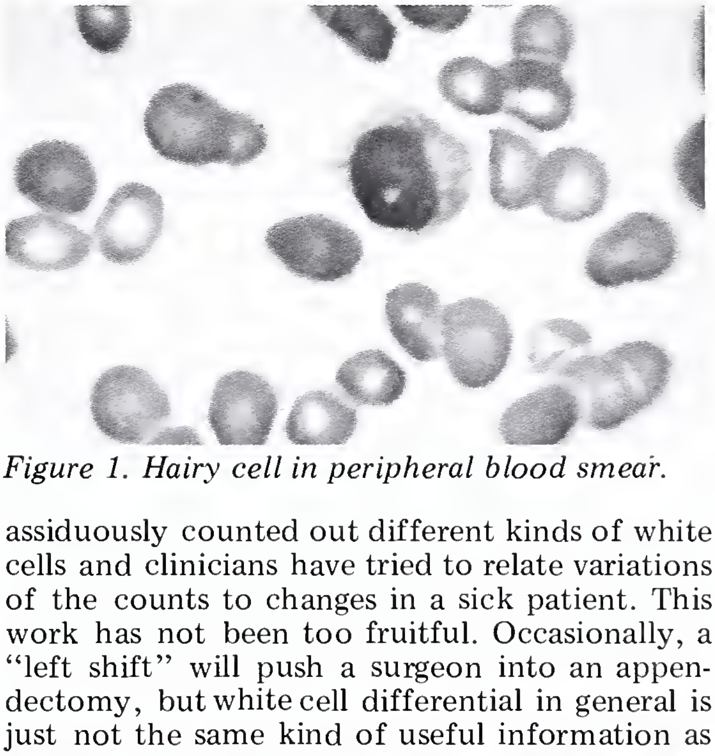

Figure 1. Hairy cell in peripheral blood smear.

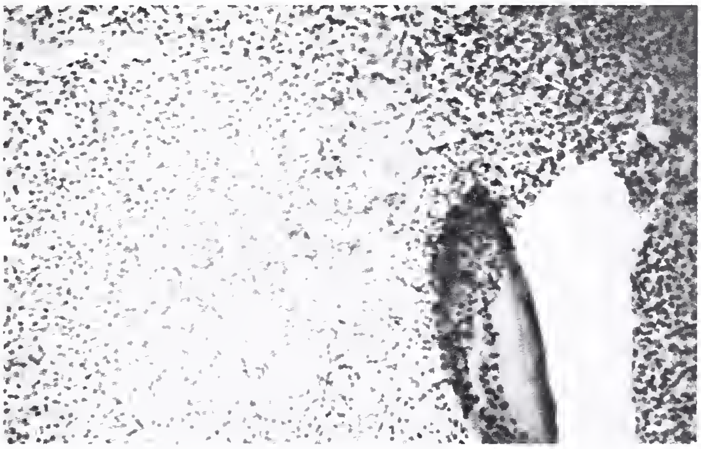

Figure 2. Needle biopsy specimen of bone marrow showing hyperplasia.

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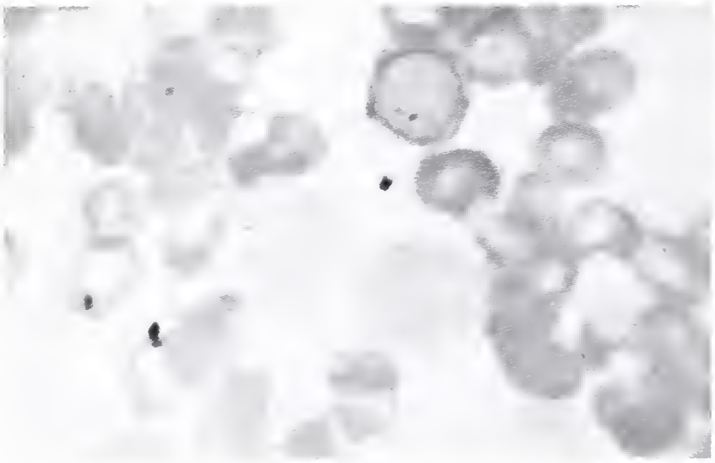

Figure 3. Bone marrow "touch" preparation.

is a platelet count, a chest x-ray, or the biopsy of a mass. Almost never does differentiating between monocytes and lymphocytes bring about a significant change in the way a patient is treated. But if we can show what monocytes do exactly, what they respond to, clarify the differences between "T" and "B" lymphocytes and in short, describe the control mechanisms for tissue and humoral immunity, the already active field of tissue transplantation therapy will explode.

Of course, this division between "humoral" and "tissue" immunity is a false one. Lymphocytes, macrophages, immunoglobins and plasma cells, complement, kinins and Factor XII, transfer factor and a host of similar humoral factors all play roles in immunity that, at this particular time, are rapidly being pulled apart and defined. It is wrong to look at immunity as either a floating battery of chemicals or a pack of hungry macrophages, but past observations do lead anyone, at least for conversation, to speak of these two broad areas of immunology. Removal of the bursa (a bone marrow-like organ) in young chickens and Bruton's Agammaglobulinemia in humans are associated with low levels of immunoglobins (and probably other "humoral" factors) and an inability to handle encapsulated (pyogenic) bacteria. On the other hand, young animals that have their thymuses removed and infants with DeGeorge Syndrome have lymphopenia, will take grafts easily (in fact, whole blood transfusions can lead to fatal graft-versus-host disease, GVH), and are susceptible to viruses, tuberculosis and fungus infections handled at a tissue level. These laboratory experiments and two human diseases nicely fit with dividing immunity into B-cyte humoral factors and T-cyte tissue factors. The story is more complex, though. There are some lymphocytes which do not, by several tests employed, come out with a "T" or "B" tag, and investigators are speaking of "killer," "suppressor," "helper," and "null" lymphocytes. The story is just begging to get interesting.

Figure 4. Delivery of spleen at surgery.

Thymus-dependent lymphocytes (T-cytes) come from the bone marrow, but are influenced by the thymus to carry out powerful tissue-based immune reactions. They are small when stained in the peripheral blood smear and have a smooth surface on scanning electromicroscopy. These cells are found in the middle and deep cortical parts of lymph nodes (in the main stream of lymph flow) and along the arterioles and follicular zones of the spleen. They make up about 75% of all circulating lymphocytes and almost all those in the thoracic duct. They live for a long time (maybe for life), recirculate, mobilize on stimulation, slough rejectionable grafted tissue and in an incompatible host into which they have been placed, kill that host via GVH disease. Sezary's syndrome, mycosis fungoides and "convoluted cell" lymphoma are probably neoplasias of T-cytes.

Bone marrow-influenced cells (B-cytes) are found in the germinal centers, fine-meshed areas, of the nodes and spleen. They are rough surfaced, villous-covered cells that are sedentary in nature, making up only about 10% of the lymphocytes we see in the bloodstream. Their lives are short and they show little mobilization or circulation when stimulated. The most significant identifying feature of B-cytes is the appearance of immunoglobulins on their surfaces and evidence of production of these and other important humoral factors. Their association with plasma cells is intimate by these facts alone and many believe B-cytes are direct precursors of plasma cells. Chronic lymphatic leukemia is almost surely a B-cyte malignancy.

Monocytes are characterized by their phagocytic nature[2,3,4]. They are born in the bone marrow, have some things in common with neutrophils, spend little time in the bloodstream, and differentiate into macrophages, cells with many names (see Williams' *Hematology*, McGraw-Hill, 1972, p. 750). Macrophages take on morphology and metabolism unique to the tissue they work in: pulmonary alveoli, peritoneum, Kupffer liver cells, spleen, and others. Monocytes look larger than lymphocytes on scanning electromicroscopy and have broad-based "ruffles" and a few villi. Just how intimate the relationship of monocytes is with T- and B-cytes we cannot be sure, but the functions are intertwined both ways. It is said that lymphocytes talk to monocytes, macrophages, tell them where and what to eat. On the opposite, processing of antigen by monocytes may be essential for proliferation of lines of uncommitted lymphocytes directed against specific antigens.

TABLE 2
CLINICAL PRESENTATION AND COURSE OF HAIRY CELL LEUKEMIA

I. Pancytopenia with monocytopenia
II. Splenomegaly with no lymph node enlargement
III. Bone marrow hyperplasia
IV. High serum acid phosphatase
V. Response to splenectomy
VI. Chronic course like lymphoproliferative disease rather than histiocytic lymphoma

Hairy cells have never been thought to be T-cytes because nothing about them resemble a thymus-dependent, tissue lymphocyte. The toss-up is between monocytes and B-cytes. Table 3 lists the findings of recent studies of HC's and points out those findings suggesting that it is a B-cyte line which has become neoplastic. The fact that HC's adhere to cotton, glass, and plastic suggest they are getting ready to phagocytize, but the direct evidence for phagocytosis is lacking. Furthermore, no one says that malignant, sticky B-cytes could not adhere to things. "Ruffles"? The scanning electromicroscopy pictures are pretty and do look monocytoid, but the authors found many cells with microvilli similar to B-cytes and came out firmly in favor of B-cyte etiology. Two other factors that do not appear in Table 2 is that HC's accumulate in tissue (spleen) where macrophages are found (the pattern of this infiltration is consistent with histiocytic lymphoma, a monocyte-macrophage disease) and patients with HCL have few circulating monocytes, suggesting a break or defect in the manufacturing of these cells[5]. On the other side of the argument, the course of HCL is not like histiocytic lymphoma and maybe the normal relationship between B-cytes and monocytes is defective, leading to monocytopenia and macrophage tissue accumulation.

TABLE 3
CYTOCHEMICAL AND CULTURE CHARACTERISTICS OF HAIRY CELLS

1. Acid Phosphatase, Tartrate resistant
*2. Behaves like B-cyte in culture with low level of proliferation
*3. Half life of 140 hours in blood
4. Intercellular particles resembling Epstein-Barr Virus(6)
*5. Monoclonal surface IgG
6. No response to phytohemagglutinin
*7. No Phagocytosis but adheres to cotton, glass, plastic and nylon
*8. No colony stimulating activity
+9. Ruffles, ridges and villous processes (7) on scanning electronmicroscopy

*Suggests lymphocyte
+Suggests monocyte

The lack of evidence for phagocytosis, behavior in cell cultures, the long blood circulation time and lack of elaboration of colony stimulating activity[8] all suggest HCL is a malignant B-cyte. But the strongest evidence for B-cytes is that monoclonal immunoglobulin has, rather consistently, been found on the surface (not in the plasma of the patient) of HC's [9-11]. This is similar to finding light chains in the urine of a patient with multiple myeloma. This suggests that the immunoglobin on the surface is not adsorbed material which could have both kinds of light chains. This evidence indicates that an abnormal line or clone of B-cytes is monotonously producing identical immunoglobulin parts in cell after malignant cell.

In summary, HCL looks like a B-cyte, lymphocytic neoplasia. The course of the disease may be long (up to 15 years in some patients) and splenectomy is the treatment of choice. Aggressive chemotherapy is contra-indicated. □

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EYE DROPS

Milo H. Fritz, M.D., F.A.C.S.

Many years ago when the fuzz was still on the peach, accidents and ill health happened to the other guy and the sense of immortality coursed in my blood. I returned to Alaska after World War II and a year's refresher courses in EENT to practice in Anchorage.

In spite of the expressed opinion of many, that a fellow of my qualifications would starve to death, I was busier than I cared to be from the first day.

Lest any of you think this statement vainglorious, recall, I was like the only guy selling life preservers at a shipwreck. I did not need to be a supersalesman.

One day I had prescribed eye drops for a lady with a mild Morax-Axenfeld conjunctivitis. A few days later she returned. "My eyes are no better," she said.

"Have you been taking the drops every three hours when awake?" I asked.

"Yes," she said, "and I must say that they taste like hell."

To say that I was stunned was not putting too high a polish on it. In looking at the dropper bottle my directions in clear type accusingly read, "Two drops every 3 hours when awake for seven days."

Shaken by this, I explained I wanted her to put two drops "in" each eye every three hours when awake.

Instead of suing me, as is the custom nowadays, she acknowledged that some doubt had crossed her mind but she was too ashamed to call. Since then my directions have been more explicit.

Sometime later during evening rounds at the Providence Hospital on a beautiful blue and gold day in Anchorage, I was writing on a chart when a friend, dressed in a hospital gown, stopped to say good evening and to announce that he was recovering from a hemorrhoidectomy.

The head nurse piped up and asked, "Are you taking your medicine three times a day?"

"You mean these?" said the patient holding up a big rectal suppository wrapped in foil. "You bet I am," said the patient, "three times a day and I never tasted anything worse in my whole life; that's what I came to see you about." The girl blushed, stammered and burst into uncontrollable laughter finally getting a grip on herself and telling the patient how to use his rectal suppositories properly!

In my practice, before the advent of Cyclogyl and Mydriacil, I used atropine as a cycloplegic three times daily in children for three days before their appointment, leaving the role of dropper to the parents while the child, of course, was the droppee. I told the parents, "One drop in each eye three times daily for three days preceding the appointment." What I meant, of course, was "on," not "in" the eye which is common prescription jargon even to this day.

It soon became apparent that in spite of sincere statements that the directions were being carried out about half the time the drops may have landed some place but they never got anywhere near the eye. Because, in the remaining half, in which the parents assured me that the drops had been put "in" the eyes the brisk reactions of the child's pupil clearly show that such had not truly been the case.

About that time Cyclogyl and homatropine arose on the ophthalmological horizon and we administered these drops in the office because they required multiple instillations. It soon became apparent that to some people having drops instilled in the conjunctiva was as traumatic as a preanesthetic midthigh amputation, taking one parent to hold the child's head, one to hold his body and the office nurse spreading the lids and bombing the eyes with the drops. Most kids submitted to less than this karate approach but a

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large percentage roared and fought. If six kids were in the office and the first one raised hell you could count on the others doing the same.

But this approach has the blessing of custom and is used in most ophthalmologists' office today. (See P. C. Diorio and Ober R in the *J Pediatric Ophthal. 12:*123, 1975 "Method of Instilling Ophthalmic Medication in Child Eyes." Of course, they meant "on" and not "in." But let it go.)

Then, one day about 10 years ago, the answer to this vexing little problem came to me in a blinding flash of inspiration. I suppose William Harvey, Semmelweiss, Roentgen, Pasteur, and Lister would understand. But, the Nobel Prize Commission will doubtless pass this arbeit by. Such is the reward of obscurity. Well, anyway, to keep you in suspense no longer, here's how to use eyedrops and insure their getting into the conjunctival sac ("in" the eye) where they belong.

Ask the patient to lie down on his back, put a piece of tissue in his right hand. Having the face parallel to the ceiling and guiding the chin gently have the patient turn his head a few degrees to the left. This will make a little depression over the right medial canthus. Then you say, "Now close you eyes, not tightly, just as though you were sleeping." Next, lightly resting the ulnar side of the hand in which you are holding the dropper or dropper bottle on the patient's forehead, you say, "Now I am going to drop the medicine right here in the corner of your closed eye and it will make a little pool." So you drop the medication right there and say to the patient, "Now blink your eyes." All but the most squeamish do and you say, "What's happened to the medicine?" And the patient says, "Why, it's run right into my eye! How come none of my other eye doctors never showed me this?" Modesty, so far, has prevented me from telling them I'm just smarter.

Next, I say, "Now put your tissue right here where I am tapping you," gently tapping the right temple while gently rotating his face a little to the right. When the patient does this the medicine runs across the eye, spills out and is caught in the tissue instead of running into his ear — grounds for a lawsuit, of course, unless you are an anachronism, like me, practicing otolaryngology as well as or even better than ophthalmology.

Then the left eye is done in the same way and the patient then is helped to sit up and told to blot, not rub, any excess moisture on his temple or cheek. Finally, I let the patient do it himself.

In younger children the person instilling the drops can hold the tissue. One of the beauties of this "pool technique" is that it can easily be done by the patient himself on a construction project, oil platform, in school or almost anyplace he happens to be when the times for using his medication arise. Emergency medical teams and in-service training trainees have all expressed their satisfaction upon learning this simple technique of carrying out what sometimes is a traumatic performance both for the dropper and the droppee.

In some children, or adult situations where any pressure or manipulation would be disastrous, a drop of Ophthain can be used first after which you could pour aguaregia on the eye (not that this is ever done, of course) without immediate complaint.

In some youngsters initial squeezing shut of the eyes will soon stop if you or the person who is instilling the drops will just keep quiet a moment. The kid, surprised at the lack of uproar from doctor, nurse and parents, sometimes looks up to see why he is not getting the attention he is used to and then, of course, in go the drops. In others, pulling down the lower lid with your finger on the inferior orbital rim will get the job done.

Admittedly this does not rate with the use of the laser for the cure of certain retinal diseases or the intraocular lenses used after cataract extractions as one of the giant steps forward in ophthalmology. But, it will relieve the ophthalmologist or any doctor and his assistants who use drop medications on the eyes and his patients of one of the small anfractuosities of life. We need all the comfort we can get as the ominous shadow of federal medicine looms over us all. □

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Fairbanks, Alaska
May 31 — June 5, 1977

GUEST SPEAKERS

Michael Copass, M.D., Neurologist and Medical Director of the emergency center at Harborview, Seattle.

Dee B. Crouch, M.D., Emergency Medicine, Mountain Medical Specialist, American Bicentennial Everest Expedition.

David Heimbach, M.D., Associate Professor of Surgery, University of Washington School of Medicine.

Lula Lubchenco, M.D., Professor of Pediatrics at the University of Colorado and internationally known neonatologist.

Hoyt D. Gardner, M.D., Trustee, American Medical Association.

TUESDAY, MAY 31, 1977

1:30-5:00 p.m.	Council Meeting Alaska State Medical Association, Chena Room
5:00 p.m.	Gold Room Open for Arrangement of Exhibits
7:30 p.m.	Cocktails, Physicians and Exhibitors, Fairbanks Clinic

WEDNESDAY, JUNE 1, 1977

7:30-10:15 a.m.	Registration and ASMA Business Meeting, Mid Gold Room
10:30-11:15 a.m.	Lecture — Lula Lubchenco, M.D. Mid Gold Room
11:15-12:00 noon	— Lecture David Heimbach, M.D. Mid Gold Room
12:00-1:30 p.m.	AMPAC Luncheon Rampart Room
1:30-2:15 p.m.	Lecture — Dee Crouch, M.D. Mid Gold Room
2:15-3:00 p.m.	Lecture — Michael Copass, M.D. Mid Gold Room
3:15-5:00 p.m.	ASMA Business Meeting Mid Gold Room
5:00 p.m.	Riverboat "Nenana" Excursion and Dinner

THURSDAY, JUNE 2, 1977

8:00-10:15 a.m.	ASMA Business Meeting Mid Gold Room
10:30-11:15 a.m.	Michael Copass, M.D. Mid Gold Room
11:15-12:00 noon	— David Heimbach, M.D. Mid Gold Room
12:00-1:30 p.m.	APRO Luncheon and Annual Meeting Bear and Seal Room
	Dee Crouch, M.D. "One Man's View of Everest" Mid Gold Room
3:15-5:00 p.m.	ASMA Business Meeting
6:30 p.m.	AAFP Annual Meeting Cocktails and Banquet Rampart Room
6:30 p.m.	American College of Surgeons: Cocktails, Banquet, and Annual Meeting Chena Room
7:00 p.m.	American Academy of Pediatrics: Annual Meeting Home of Richard Reem, M.D. 231 Iditarod

FRIDAY, JUNE 3, 1977

8:00-10:15 a.m.	ASMA Business Meeting Mid Gold Room
10:30-12:00 noon	— Lecture Medical Emergency Alaskana
12:00-2:15 p.m.	Luncheon with Guest Speaker, Hoyt Gardner "National Health Insurance" West Gold Room
2:15-3:00 p.m.	Lecture Lula Lubchenco, M.D. Mid Gold Room
3:15-5:00 p.m.	ASMA Business meeting
7:00 p.m.	Cocktails West Gold Room
8:00 p.m.	ASMA Banquet West Gold Room

SATURDAY, JUNE 5, 1977

8:00-12:00 noon	— ASMA Council Meeting Chena Room
12:00 noon	Pipeline Tour

NORTHERN HIGHLIGHTS — 29

SELECTED ABSTRACTS ON MEDICINE AND PUBLIC HEALTH IN THE NORTH

Parasitic Diseases

Lichtenfels, J. R.; Brancato, F. P.

Anisakid larva from the throat of an Alaskan Eskimo. *Amer. J. Trop. Med. & Hyg. 25:* 691-693, 1976.

This paper describes in detail the characteristics of a larval nematode recovered from an Alaskan Eskimo. The authors are with the Animal Parasitology Institute, USDA, and the USPHS Hospital, Seattle.

A 46-year-old male Eskimo from the lower Kuskokwim-Yukon area pulled the worm from his throat in January 1972 and took it to a physician. His only symptoms had been recurrent sore throats, which had been negative for bacterial pathogens. Three stool specimens were negative for ova or parasites. A blood count was unremarkable.

The specimen was ultimately identified as a fourth-stage larva of a *Phocanema* species, a nematode parasite of many types of food fish from the Pacific as well as Atlantic coasts. The present human case is only the second from the West Coast and the sixth from North America. Several other doubtful or positive cases have been reported since this one.

The worm was 29mm in length, with three large fleshy lips, large ventral excretory glands, and a tail with a sharp conical spine. The parasite is thought to have undergone development within the human host since normally only third-stage larvae are known to occur in fish. The genus was assigned on the basis of the morphology of the lips.

The extent of this parasitic infestation is unknown. Although rarely reported, it may occur in many food fishes. The worm, on the basis of other reported cases, is known to be able to penetrate human tissue.

Schnitt, N.; Saville, J. M.; Friis, L.; Stovell, P. L.

Trichinosis in British Columbia wildlife. *Can. J. Public Health 67:* 21-24, 1976.

This paper reviews the prevalence of *Trichinella spiralis* in various types wildlife in the Province of British Columbia, based on a survey carried out in 1972-73. The authors are with various agencies of the provincial government.

Before discussing the original findings of the study, the authors review the scientific literature dealing with trichinosis in northern North America, with particular emphasis on the bear as a cause of the disease in man.

The current study was largely carried out during the summers by biology students from the university. Samples of wildlife were also submitted by trappers, veterinarians, and the staff of the Fish and Wildlife Branch. The area surveyed was the East Kootenay section of the province.

Some five out of 62 black bears and one grizzly tested were found to be positive. Other large animals harboring the parasite larvae were coyotes (25/104), martens (22/36), lynx (5/21), skunk (1/18), cougar (2/11), bobcat (1/10), weasel (2/10), and wolverine (2/4). Among smaller animals 1/9 shrews, 10/348 white-footed deer mice, 4/75 ground squirrels, and 2/72 red squirrels were also found to be positive for *T. spiralis.*

Although the parasite was found to be widely distributed in British Columbia wildlife, the main link with humans was felt to be the bear.

Though specific evidence was lacking, it seemed possible that infected rodents, serving as a vital food source for larger carnivores, also could serve as a link in the food chain reaching man. Cannibalism by large carnivores was another possibility which fostered transmission of the parasite. Finally, there is the possibility of trichinosis being transmitted from wild animals, and rodents in particular, into domestic pigs.

Meerovitch, E.; Faubert, G.; Groulx, G.

Zoonotic subcutaneous dirofilariasis in Quebec. *Can. J. Public Health 67:* 333-335, 1976.

This brief paper is a case report describing an unusual parasitic infestation occurring in a woman from rural Quebec,

The patient was a 43-year-old woman living in the village of St. Louis de France, who had never traveled outside the province. In September 1974 she developed a lump in her left axilla which reached the size of an olive and then diminished. She then developed an itchy papule in the upper outer quadrant of the left breast. The breast nodule was excised in November 1974. A week after excision, the patient had a blood eosinophilia of 51%, and in January 1975, an indirect hemagglutination test for filiariasis was 1:160. No microfilaria or fecal parasites were seen. The biopsy specimen contained many eosinophils and demonstrated a large nematode in cross-section. The worm was identified as a Dirofilaria (subgenus *Nochtiella*) similar to those found in two other recent human cases, from Ontario and from the State of Washington.

As yet the exact nature of this infection and its mode of mosquito transmission has not been elucidated.

Otolaryngology

Ratnesar, P.

Chronic ear disease along the coasts of Labrador and Northern Newfoundland. *J. Otolaryng. 5:* 122-30, 1976.

This paper reports the findings of an otolaryngological consultant working for a period with the Grenfell Mission in Northern Newfoundland and Labrador. The author is a specialist now practicing in Kent, England.

Eskimos, Montagnais and Naskapi Indians, and Caucasians were studied over the period January 1973 to February 1975. All patients were referrals from general physicians or nurses, because of complaints of deafness or discharging ears. Patients were given a full otologic assessment, including audiometry. Patients requiring detailed investigation or surgery were admitted to the hospital in St. Anthony.

The four major categories of disease encountered were (1) serous otitis media, (2) chronic otitis media, (3) cholesteatoma, and (4) tympanosclerosis. Cholesteatoma was found predominately in Caucasians, whereas chronic otitis media and tympanosclerosis were relatively more common in the native populations. Survey information indicates that 3.5% of Indians, 2.8% of Eskimos and 0.2% of Caucasians suffer from ear disease.

The author notes that Eskimos rarely had significant adenoidal tissue, in contrast to the Caucasians. The latter were also found to have small Eustachian tubes compared with the Eskimos. The different ethnic patterns of ear disease are related by the author to socioeconomic conditions, but also to the degree of aeration of the middle ear cleft. Cholesteatoma in particular was thought to be primarily due to poor aeration seen in the Caucasian population.

Doyle, P. J.; Morwood, D.

Middle ear disease in native Indian children in British Columbia — incidence of disease and an evaluation of screening methods. *J. Otolaryng. 5:* 103-115, 1976.

This study compares and evaluates the findings for ear disease among a population of British Columbia Indians using three different screening methods. The principal author is with the University of British Columbia.

A total of 1,109 children between the ages of one month and 17 years were examined in five Indian communities. The sample comprised 90% of all children in those villages. Each child was seen, if possible, by a nurse, who took an ENT history, then by an audiologist who performed both pure tone screening and impedance audiometry, and finally by an otolaryngologist. Each of the health workers recorded their findings independently. (Recording forms are reproduced in the article).

Of the total, 141, or 12.7% of the children, had serous otitis media, a perforated tympanic membrane or a cholesteatoma, as judged by otoscopic examination. Disease incidence was highest in the children under two, and lowest betwen 9-17 years. Serous otitis media was the commonest condition, with an overall incidence of 6.8%. Over half of the cases were in children under four. Sixty-two, or 5.6% of the children examined, had a perforation, of which 60% were wet. The highest incidence was in the age group 5-8. Four patients had a cholesteatoma.

The limitations of otoscopic examination were compared to those of pure tone and impedance audiometry. Pure tone audiometry was found to be a poor screening method. In this study, 12.1% of middle ear disease was missed and 78.3% of those under four could not be tested by this method. Impedance audiometry was normal in 5% of patients with disease, but led to a large number of false negatives.

The authors propose that a coordinated program of screening for ear disease should involve the public health nurse, local physicians, audiologists, and otolaryngologists. Nurse practitioners should be given special training in the recognition of ear disease.

Roberts, M. E.

Comparative study of pure-tone, impedance, and otoscopic hearing screening methods. A survey of native Indian children in British Columbia. *Arch. Otolaryngol. 102:* 690-694, 1976.

This paper also reports findings derived from the study described above by Doyle and Morwood. The author is an audiologist with the Hearing Branch, Workers' Compensation Board of British Columbia.

Of the total of 1,109 children, 19% could not be tested by pure-tone audiometry, usually because of their young age. Another 19% showed abnormal findings, and 62% were classified as normal.

Only eight percent could not be tested by the impedance audiometry method. Another 54 percent were classified as normal and 38% as abnormal.

Both methods lead to an overreferral of patients for otologic follow-up. Further investigation is needed to define more accurately the parameters from impedance audiometry which will yield the best referral results.

—Robert Fortuine, M.D.

(Northern Highlights, *which has been a feature of every issue since March 1972, will conclude with this number. Ed.)*

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For recurrent attacks of urinary tract infection in women

Bactrim™ DS Double Strength Tablets

Each tablet contains 160 mg trimethoprim and 800 mg sulfamethoxazole.

Just one tablet b.i.d. for 10 to 14 days

- Action at urinary/vaginal/lower bowel sites helps eliminate reservoirs of infecting organisms
- Distinctive antibacterial action plus wide spectrum helps eradicate recurrent UTI
- Low incidence of bacterial resistance in community practice
- Convenient *b.i.d.* dosage provides day-and-night antibacterial control
- Contraindicated during pregnancy and the nursing period. During therapy, maintain adequate fluid intake; perform CBC's and urinalyses with microscopic examination.

Before prescribing, please consult complete product information, a summary of which follows:

Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms: *Escherichia coli, Klebsiella-Enterobacter, Proteus mirabilis, Proteus vulgaris, Proteus morganii.* **It is recommended that initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination.** *Note:* The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

Also for the treatment of documented *Pneumocystis carinii* pneumonitis. To date, this drug has been tested only in patients 9 months to 16 years of age who were immunosuppressed by cancer therapy.

The recommended quantitative disc susceptibility method (*Federal Register,* 37:20527-20529, 1972) may be used to estimate bacterial susceptibility to Bactrim. A laboratory report of "Susceptible to trimethoprim-sulfamethoxazole" indicates an infection likely to respond to Bactrim therapy. If infection is confined to the urine, "Intermediate susceptibility" also indicates a likely response. "Resistant" indicates that response is unlikely.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; pregnancy; nursing mothers; infants less than two months of age.

Warnings: Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for infants less than two months of age.

Urinary Tract Infections: Usual adult dosage—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days.

Recommended dosage for children—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. A guide follows:

Children two months of age or older

Weight		Dose—every 12 hours	
lbs	kgs	Teaspoonfuls	Tablets
20	9	1 teasp. (5 ml)	½ tablet
40	18	2 teasp. (10 ml)	1 tablet
60	27	3 teasp. (15 ml)	1½ tablets
80	36	4 teasp. (20 ml)	2 tablets or 1 DS tablet

For patients with renal impairment:

Creatinine Clearance (ml/min)	Recommended Dosage Regimen
Above 30	Usual standard regimen
15-30	½ the usual regimen
Below 15	Use not recommended

Pneumocystis carinii pneumonitis: Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

Supplied: *Double Strength (DS) tablets,* each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100. *Tablets,* each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40, available singly and in trays of 10. *Oral suspension,* containing in each teaspoonful (5 ml) the equivalent of 40 mg trimethoprim and 200 mg sulfamethoxazole, fruit-licorice flavored—bottles of 16 oz (1 pint).

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Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

Please see back cover.

Her next attack of cystitis may require

the Bactrim™ 3-system counterattack

ROCHE

Bactrim has shown high clinical effectiveness in recurrent cystitis as a result of its wide spectrum and distinctive antimicrobial action in the urinary, vaginal and lower intestinal tracts.

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Bactrim fights uropathogens in the urinary tract/vaginal tract/lower intestinal tract

Please see reverse side for summary of product information.

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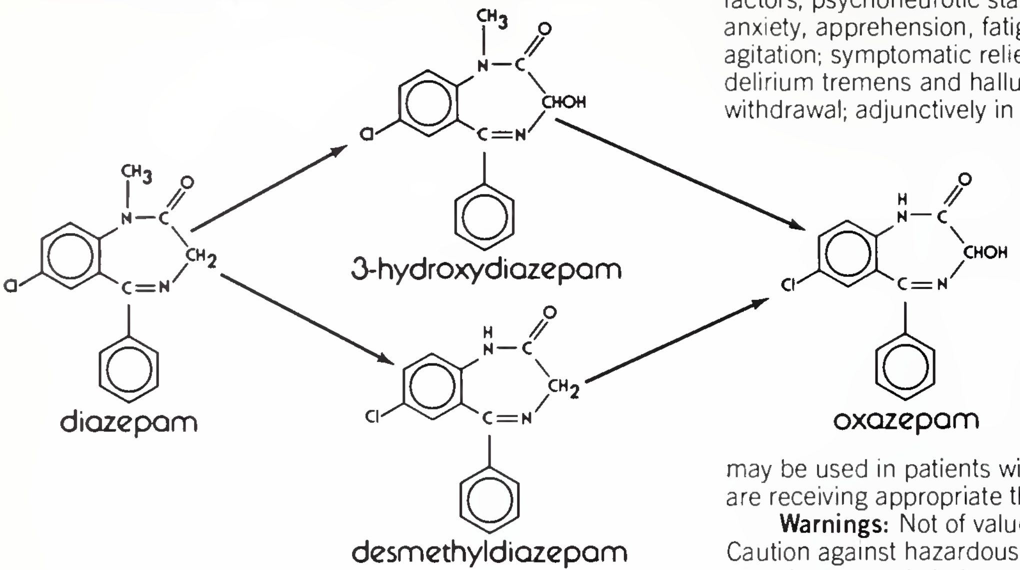
ALASKA MEDICINE

Volume 19, Number 4

July 1977

A pharmacokinetic character all its own



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Pharmacokinetic studies also demonstrate that Valium has a pattern of absorption, distribution, metabolism and elimination that is reliable and consistent. And, although the pharmacokinetics of a drug cannot, at present, be specifically related to its clinical effects, it is clearly a factor that distinguishes one product from another by providing important insights into how each moves through the patient's body.

Valium® (diazepam) Ⓒ IV

2-mg, 5-mg, 10-mg scored tablets

a prudent choice in psychic tension and anxiety

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology; spasticity caused by upper motor neuron disorders; athetosis; stiff-man syndrome; convulsive disorders (not for sole therapy).

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

Usage in Pregnancy: **Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

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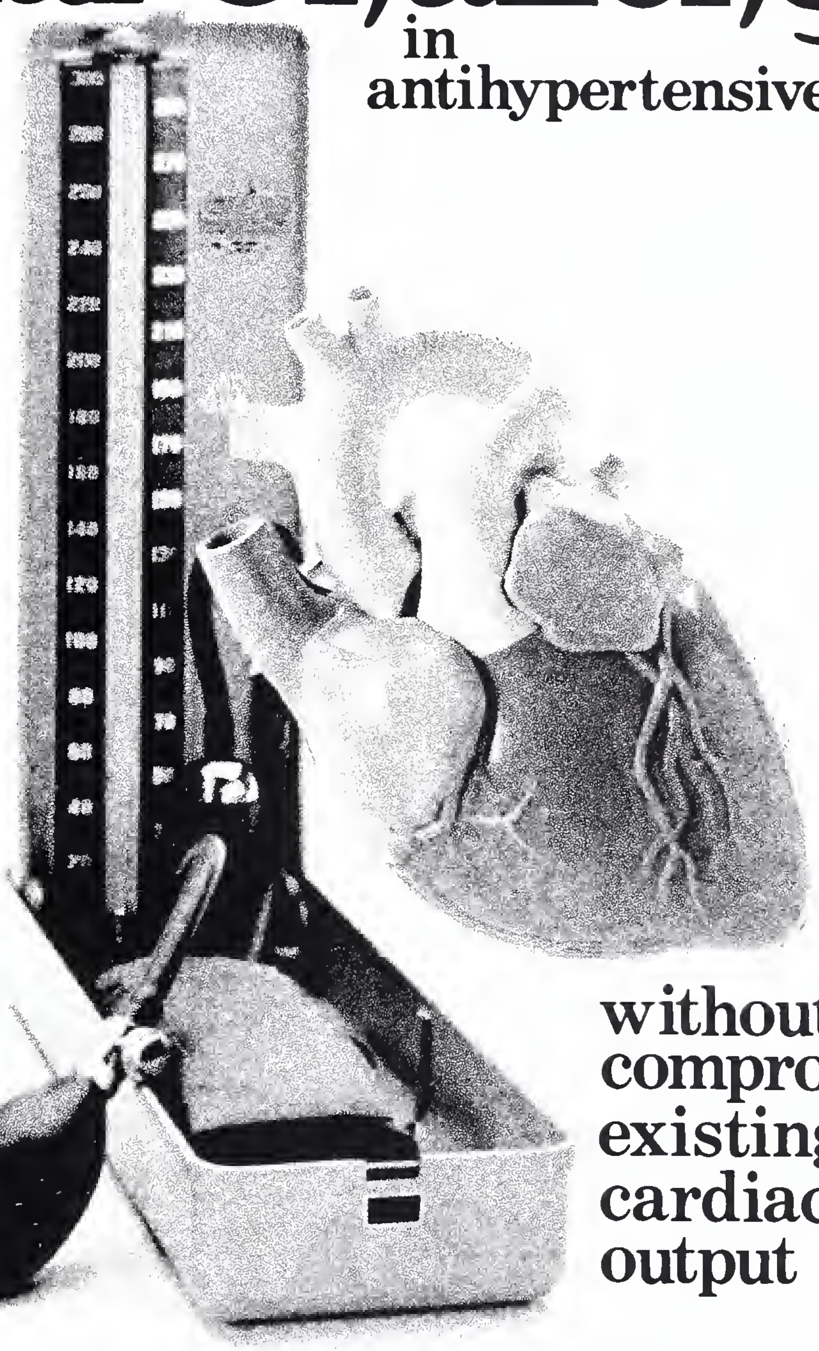
in
antihypertensive therapy



to lower
blood pressure
effectively...

without
compromising
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in hypertension

TABLETS: 250 mg, 500 mg, and 125 mg

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usually with no direct effect on
cardiac function—cardiac output
is usually maintained

ALDOMET is contraindicated in active hepatic disease, hypersensitivity to the drug, and if previous methyldopa therapy has been associated with liver disorders.

It is important to recognize that a positive Coombs test, hemolytic anemia, and liver disorders may occur with methyldopa therapy. The rare occurrences of hemolytic anemia or liver disorders could lead to potentially fatal complications unless properly recognized and managed. For more details see the brief summary of prescribing information.

For a brief summary of prescribing information, please see following page.

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in hypertension

ALDOMET®

(METHYLDOPA|MSD)

helps lower blood pressure effectively... usually with no direct effect on cardiac function–cardiac output is usually maintained

Contraindications: Active hepatic disease, such as acute hepatitis and active cirrhosis; if previous methyldopa therapy has been associated with liver disorders (see Warnings); hypersensitivity

Warnings: It is important to recognize that a positive Coombs test, hemolytic anemia, and liver disorders may occur with methyldopa therapy. The rare occurrences of hemolytic anemia or liver disorders could lead to potentially fatal complications unless properly recognized and managed. Read this section carefully to understand these reactions.

With prolonged methyldopa therapy, 10% to 20% of patients develop a positive direct Coombs test, usually between 6 and 12 months of therapy. Lowest incidence is at daily dosage of 1 g or less. This on rare occasions may be associated with hemolytic anemia, which could lead to potentially fatal complications. One cannot predict which patients with a positive direct Coombs test may develop hemolytic anemia. Prior existence or development of a positive direct Coombs test is not in itself a contraindication to use of methyldopa. If a positive Coombs test develops during methyldopa therapy, determine whether hemolytic anemia exists and whether the positive Coombs test may be a problem. For example, in addition to a positive direct Coombs test there is less often a positive indirect Coombs test which may interfere with cross matching of blood.

At the start of methyldopa therapy, it is desirable to do a blood count (hematocrit, hemoglobin, or red cell count) for a baseline or to establish whether there is anemia. Periodic blood counts should be done during therapy to detect hemolytic anemia. It may be useful to do a direct Coombs test before therapy and at 6 and 12 months after the start of therapy. If Coombs-positive hemolytic anemia occurs, the cause may be methyldopa and the drug should be discontinued. Usually the anemia remits promptly. If not, corticosteroids may be given and other causes of anemia should be considered. If the hemolytic anemia is related to methyldopa, the drug should not be reinstituted. When methyldopa causes Coombs positivity alone or with hemolytic anemia, the red cell is usually coated with gamma globulin of the IgG (gamma G) class only. The positive Coombs test may not revert to normal until weeks to months after methyldopa is stopped.

Should the need for transfusion arise in a patient receiving methyldopa, both a direct and an indirect Coombs test should be performed on his blood. In the absence of hemolytic anemia, usually only the direct Coombs test will be positive. A positive direct Coombs test alone will not interfere with typing or cross matching. If the indirect Coombs test is also positive, problems may arise in the major cross match and the assistance of a hematologist or transfusion expert will be needed.

Fever has occurred within first 3 weeks of therapy, sometimes with eosinophilia or abnormalities in liver function tests, such as serum alkaline phosphatase, serum transaminases (SGOT, SGPT), bilirubin, cephalin cholesterol flocculation, prothrombin time, and bromsulphalein retention. Jaundice, with or without fever, may occur, with onset usually in the first 2 to 3 months of therapy. In some patients the findings are consistent with those of cholestasis. Rarely fatal hepatic necrosis has been reported. These hepatic changes may represent hypersensitivity reactions; periodic determination of hepatic function should be done particularly during the first 6 to 12 weeks of therapy or whenever an unexplained fever occurs. If fever and abnormalities in liver function tests or jaundice appear, stop therapy with methyldopa. If caused by methyldopa, the temperature and abnormalities in liver function characteristically have reverted to normal when the drug was discontinued. Methyldopa should not be reinstituted in such patients.

Rarely, a reversible reduction of the white blood cell count with primary effect on granulocytes has been seen. Reversible thrombocytopenia has occurred rarely. When used with other antihypertensive drugs, potentiation of antihypertensive effect may occur. Patients should be followed carefully to detect side reactions or unusual manifestations of drug idiosyncrasy.

Use in Pregnancy: Use of any drug in women who are or may become pregnant requires that anticipated benefits be weighed against possible risks; possibility of fetal injury can not be excluded.

Precautions: Should be used with caution in patients with history of previous liver disease or dysfunction (see Warnings). May interfere with measurement of: uric acid by the phosphotungstate method, creatinine by the alkaline picrate method, and SGOT by colorimetric methods. Since methyldopa causes fluorescence in urine samples at the same wavelengths as catecholamines, falsely high levels of urinary catecholamines may be reported. This will interfere with the diagnosis of pheochromocytoma. It is important to recognize this phenomenon before a patient with a possible pheochromocytoma is subjected to surgery. Methyldopa is not recommended for patients with pheochromocytoma. Urine exposed to air after voiding may darken because of breakdown of methyldopa or its metabolites. Stop drug if involuntary choreoathetotic movements occur in patients with severe bilateral cerebrovascular disease. Patients may require reduced doses of anesthetics; hypotension occurring during anesthesia usually can be controlled with vasopressors. Hypertension has recurred after dialysis in patients on methyldopa because the drug is removed by this procedure.

Adverse Reactions: *Central nervous system:* Sedation, headache, asthenia or weakness, usually early and transient; dizziness, lightheadedness, symptoms of cerebrovascular insufficiency, paresthesias, parkinsonism, Bell's palsy, decreased mental acuity, involuntary choreoathetotic movements; psychic disturbances, including nightmares and reversible mild psychoses or depression.

Cardiovascular: Bradycardia, aggravation of angina pectoris. Orthostatic hypotension (decrease daily dosage). Edema (and weight gain) usually relieved by use of a diuretic. (Discontinue methyldopa if edema progresses or signs of heart failure appear.)

Gastrointestinal: Nausea, vomiting, distention, constipation, flatus, diarrhea, mild dryness of mouth, sore or "black" tongue, pancreatitis, sialadenitis.

Hepatic: Abnormal liver function tests, jaundice, liver disorders.

Hematologic: Positive Coombs test, hemolytic anemia. Leukopenia, granulocytopenia, thrombocytopenia.

Allergic: Drug-related fever, myocarditis.

Other: Nasal stuffiness, rise in BUN, breast enlargement, gynecomastia, lactation, impotence, decreased libido, dermatologic reactions including eczema and lichenoid eruptions, mild arthralgia, myalgia.

Note: Initial adult dosage should be limited to 500 mg daily when given with antihypertensives other than thiazides. Tolerance may occur, usually between second and third month of therapy; increased dosage or adding a thiazide frequently restores effective control. Patients with impaired renal function may respond to smaller doses. Syncope in older patients may be related to increased sensitivity and advanced arteriosclerotic vascular disease; this may be avoided by lower doses.

How Supplied: Tablets, containing 125 mg methyldopa each, in bottles of 100; Tablets, containing 250 mg methyldopa each, in single-unit packages of 100 and bottles of 100 and 1000; Tablets, containing 500 mg methyldopa each, in single-unit packages of 100 and bottles of 100.

For more detailed information, consult your MSD representative or see full prescribing information. Merck Sharp & Dohme, Division of Merck & Co., Inc., West Point, Pa. 19486 J6AM07 (707)

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ALASKA MEDICINE

Official Journal of the Alaska State Medical Association

1135 Eighth Avenue, Suite 6, Anchorage, Alaska 99501

Volume 19 July 1977 Number 4

ORIGINAL ARTICLE

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BRIEF SUMMARY OF PRESCRIBING INFORMATION

*INDICATIONS. Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

Effective: Management of nausea and vomiting and dizziness associated with motion sickness.

Possibly Effective: Management of vertigo associated with diseases affecting the vestibular system.

Final classification of the less than effective indications requires further investigation.

CONTRAINDICATIONS. Administration of Antivert (meclizine HCl) during pregnancy or to women who may become pregnant is contraindicated in view of the teratogenic effect of the drug in rats.

The administration of meclizine to pregnant rats during the 12-15 day of gestation has produced cleft palate in the offspring. Limited studies using doses of over 100 mg./kg./day in rabbits and 10 mg./kg./day in pigs and monkeys did not show cleft palate. Congeners of meclizine have caused cleft palate in species other than the rat.

Meclizine HCl is contraindicated in individuals who have shown a previous hypersensitivity to it.

WARNINGS. Since drowsiness may, on occasion, occur with use of this drug, patients should be warned of this possibility and cautioned against driving a car or operating dangerous machinery.

Usage in Children: Clinical studies establishing safety and effectiveness in children have not been done; therefore, usage is not recommended in the pediatric age group.

Usage in Pregnancy: See "Contraindications."

ADVERSE REACTIONS. Drowsiness, dry mouth and, on rare occasions, blurred vision have been reported.

More detailed professional information available on request.

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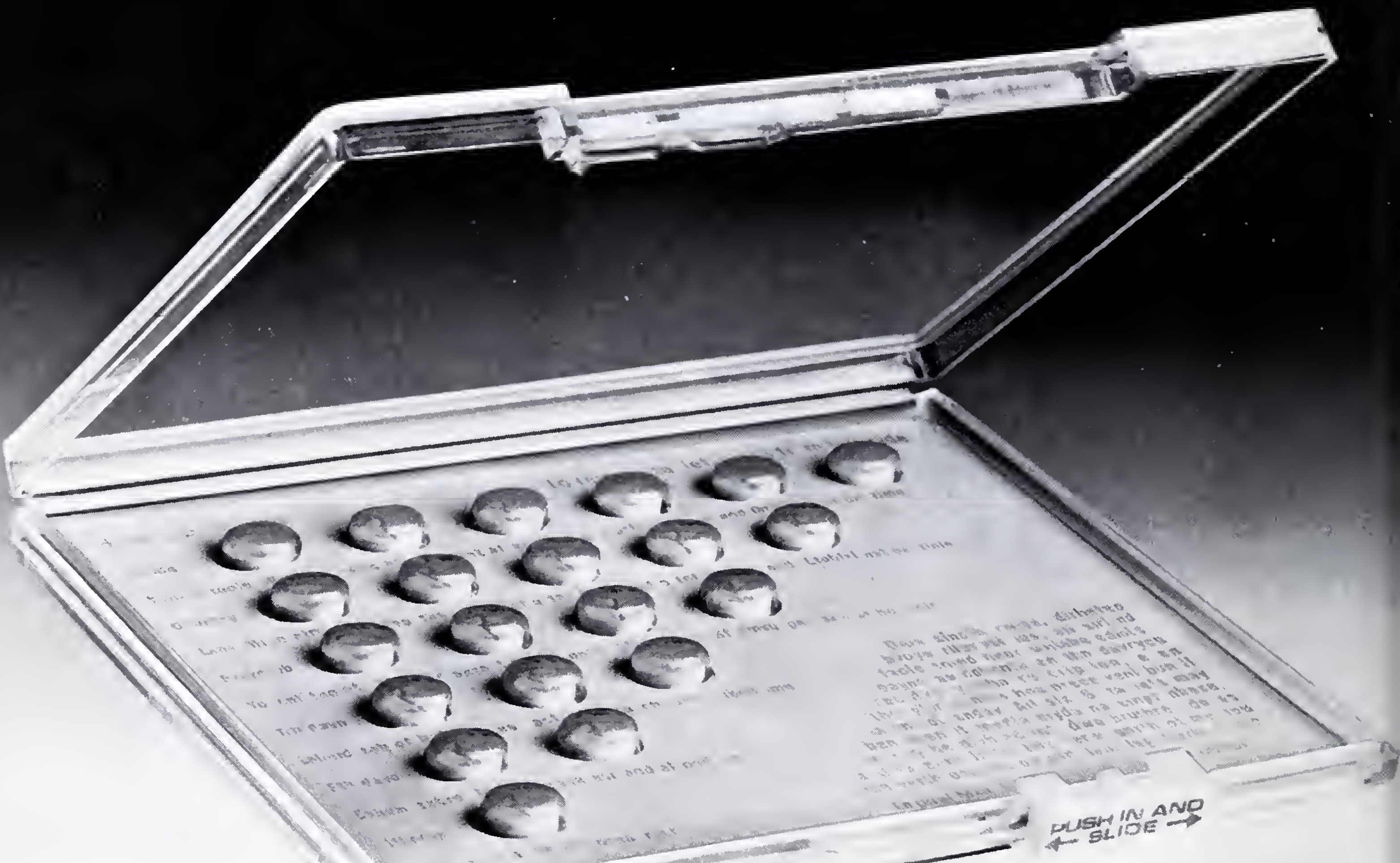

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ANEMIA AT HIGH ALTITUDE

Rodman Wilson, M.D.

Among the many adjustments of the body to the stress of acute or chronic exposure to high altitude is an increase in the number of circulating red blood cells (RBC's). Within hours after arrival at high locations there is an increase in erythropoietin production by the kidneys and an increase in absorption of iron by the intestine (1-3). Erythropoietin is a hormone which stimulates maturation of RBC's in bone marrow.

Hematocrit rises transiently on first arriving at high altitude because of shift of extracellular fluid into cells and because of modest diuresis. RBC mass, however, does not begin to rise until the end of one week because it takes this long to generate new RBC's. Thereafter hematocrit increases only at a rate of approximately 0.25 percent per day. Thus it takes two to three months at 15,000 feet elevation to raise hematocrit from 45 to 62 percent.[4]

During a short stay at high altitude other mechanisms of adaptation to low oxygen tension in air are more important. These are principally adjustments in respiration, capillary blood flow, oxygen binding to RBC's, and perhaps altered mitochondrial activity within cells.

Nonetheless one would expect that acute anemia high on a mountain would be tolerated poorly. That this is not necessarily so is attested to in the following account:

CASE REPORT

A Japanese party of five women began to climb Denali (Mount McKinley) on June 7, 1972, having been flown onto Kahiltna Glacier at about 7,000 feet elevation. The leader became ill and remained at base camp at 9,800 feet elevation while the others made their way up the steep Western Rib of the South Face of the peak. High camp was at 17,700 feet elevation.

There on June 28 one climber, a robust 23-year-old schoolteacher, became ill with shortness of breath, headache, anorexia, vomiting of bits of black material, and melena.

On the next day her three companions headed upward. They were seen by another party near the top (20,300 feet), but they apparently became lost in a snowstorm descending and fell 4,000 feet down a gully to their deaths.

The ill woman waited at the high camp for two days then struggled downward to 17,000 feet elevation unable to walk farther. She managed to crawl into her sleeping bag and pull a tent over herself. She had one bottle of water with her but was too weak to melt snow to make more or to prepare food. On July 5, eight days after onset of the illness, the party leader, now recovered from her minor illness, went up from base camp to find her friend lying in her bag, very weak and continuing to pass black bowel movements. She prepared water and soup for the stricken woman.

On the next day the leader ascended to 19,000 feet elevation in a fruitless search for her missing companions. Then between July 7 and July 10 the two survivors slowly made their way to base camp, melena continuing in the ill one. It took two more days to arrange pick-up by helicopter.

Two hours later at Providence Hospital, Anchorage, on July 12, sixteen days after onset of gastrointentinal bleeding, the woman was found to be weak, very pale, but alert. She could recall her ordeal in agonizing detail. Weight was 109½ pounds, height 59 inches, temperature 99.6° (F), respiratory rate 16, pulse rate 88, and blood pressure 100/30 mm Hg. An irregularly shaped, superficial, small retinal hemorrhage was noted in the right eye and three in the left eye. Vessel engorgement and papilledema were not seen. A few fine rales were audible in the left posterior chest. A systolic ejection murmur, interpreted as hemic, was heard at the apex of the heart. Gallop rhythm was not present. Abdominal examination was normal. Black stool was in the rectum. Blisters were found on the feet, but they were due to boot friction, not frostbite.

TABLE

Blood Counts by Automated (Coulter) Counter

	Initial (July 12)	Final (July 15)
Red blood cells, mm^3	1,360,000	4,530,000
Hemoglobin, g/100 ml	3.8	14.2
Hematocrit, percent	12.7	41.4
Mean corpuscular volume, µ3	91	92
Mean corpuscular hemoglobin, µ µg	28.3	30.3
Mean corpuscular hemoglobin concentration, percent	30.2	32.9
White blood cells, mm^3	7,100	6,100

White blood cell differential count was normal. Cerebrospinal fluid pressure was 150 mm H_2O, and fluid was clear; protein was 26 mg/100 ml; there were 3 RBC's and 1 mononulear cells per mm^3. Urine was concentrated (s.g. 1.026) but was otherwise normal. Blood urea nitrogen was 27 mg/100 ml. Electrocardiogram was normal. Chest x-ray was normal, not showing cardiac enlargement, increase in pulmonary vascular shadows, or interstitial or alveolar edema. There was a 1 cm anterior duodenal ulcer on gastrointestinal x-rays. This was undoubtedly the source of the bleeding.

The patient was treated with blood transfusions, 4,000 ml in all, iced saline gastric lavage, and oral antacids. Hematemesis and melena continued until the second hospital day then ceased. Minimum systolic blood pressure was 86 mm Hg. She was discharged from the hospital on the fourth day and was allowed to return home to Japan by air a few days later. There she recovered completely.

COMMENT

It is remarkable that this woman survived loss of as much as three-quarters of her blood. This much bleeding, even over a period of many days' time, is a severe stress at sea level. That this resilient young alpinist tolerated it over three miles high on an icy peak without profound shock, frostbite, or severe altitude sickness, is amazing.

She did exhibit retinal hemorrhages like those commonly seen at high altitude,[5] but one should be careful in assigning this cause in a person so anemic.[6]

A few rales were heard in the chest on admission, but x-ray of the chest did not confirm high-altitude pulmonary edema. She also did not exhibit signs of high-altitude cerebral edema. Spinal fluid pressure was normal.

One could argue that the lower central blood volume characteristic of severe anemia[7] protected her from the high pulmonary artery pressures and pulmonary blood volumes typical of high-altitude pulmonary edema[8,9] and the high cerebral blood flows which may contribute to the pathogenesis of high-altitude cerebral edema.[10,11]

But how could a person as anemic as this oxygenate adequately at an altitude at which the partial pressure of oxygen in air was half that at sea level? The body requires about 250 ml of oxygen each minute for basal metabolic needs. One gram of hemoglobin combines under standard conditions with 1.34 ml of oxygen. Since the patient had only 3.8 grams of hemoglobin per 100 ml of blood, only 5.09 ml of oxygen per 100 ml of blood could have combined with hemoglobin at sea level. Less than this would have been carried at altitude. But even with a reduced blood volume from bleeding the oxygen needs of her body were obviously met. It is likely that cardiac output increased. In severe anemia stroke volume increases sharply and circulation time through the lungs and systemic vessels is drastically shortened.[7] This allows for an increase in overall oxygen transport even when carrying capacity is low.

Uptake of oxygen by RBC's in pulmonary capillaries is ordinarily quick and complete. This is so largely because cells traverse the capillary single file — capillary hematocrit is only about half venous hematocrit — and the RBC's undergo distortion as they are squeezed rapidly along the vessel in a stream of plasma. Distortion is thought to assist in transfer of oxygen molecules across the RBC membrane. Similarly in systemic capillary beds single-file passage and distortion help in off-loading oxygen. When ventilation increases and flow is brisk through pulmonary capillaries, there is virtually no gradient for oxygen between alveoli and capillaries. Oxygenation is complete before RBC's have traveled the full length of the vessel. Local control of ventilation and perfusion by specialized distal pulmonary capillary chemoreceptor cells which "taste" or otherwise sample blood as it passes may assist in this process.[12]

An intermediate product of anaerobic glycolysis, 2,3-diphosphoglycerate, increases in RBC's in response both to the mild respiratory alkalosis which comes with increase in ventilation at high altitude and to anemia. 2,3-DPG loosens the bonds between hemoglobin and oxygen favoring release to tissues. The hemoglobin-oxygen dissociation curve is moved to the right; that is, for any partial pressure of oxygen in blood less oxygen is bound to hemoglobin. How important the effect is in adaptation to altitude is debated,[13,14] but the loss in carrying capacity is probably less important than the gain in ability to surrender oxygen to tissues. This may be of special importance in severe anemia where extraction is high.

In the case described there was no information concerning blood counts or iron stores prior to the climb. What RBC's there were were approximately normal in size and amount of hemoglobin (Table). Pre-existing iron deficiency is not suggested.

The question frequently arises, however, whether women climbers should take a formulation of iron before or during outings to lofty terrain. Many women have reduced iron supplies during menstrual years and are frequently anemic.

Hannon and co-workers found that Missouri co-eds raised their hematocrits on Pike's Peak (14,110 feet) like men only if prepared with oral ferrous sulfate for several months before going to Colorado.[15, 16] Hillman and Henderson have demonstrated that marrow production is limited when serum iron falls below 70 mcg percent.[17] A case like this may be the following:

CASE REPORT

A migrainous woman physician had anemia in 1967 because of heavy menses. Hematocrit was 33 percent. After she took iron, it was 42 percent. In 1970, at age 48, she was still menstruating regularly. She had not taken iron for six months. Hematocrit was again 42 percent.

Shortly thereafter on Denali she experienced mild headache and nausea while packing a heavy load to 17,200 feet elevation. Because the headache and vomiting had forced retreat on several previous attempts to scale the peak, she took furosemide, 40 mg and tablets containing aspirin, phenacetin, caffeine and butalbital before setting out for the summit. At Denali Pass (18,200 feet) the climber developed severe hemicrania and vomited. She was described as ashen in color but not struggling for air. More furosemide and anodyne were taken.

She persevered to the top (20,320 feet) remembering it only dimly. On the way down at about 19,500 feet elevation the woman became weak, unsteady, and confused. She sat down and asked to be left to die. Her companions improvised a litter and carried and dragged her, vomiting the while, to 18,700 feet elevation where she rested in a bivouac for several hours before being assisted on foot to a camp at Denali Pass. Headache subsided during the night.

She then proceeded in stages to 14,000 feet elevation. There popliteal thrombophlebitis ensued, but she was able to make her way painfully several miles to 7,000 feet elevation and left the mountain with her party by air.

In town the next day, 24 days after beginning the climb, hematocrit was less than before departure — 41 percent. Serum iron was 67 mcg percent (normal 65-175); total iron binding capacity was 386 mcg percent (normal 250-410); and saturation was 17 percent (normal 20-55). The thrombophlebitis was treated with warfarin. She recovered uneventfully.

COMMENT

Men returning from three to six weeks on Denali commonly exhibit hematocrit levels above 50 percent. Whether failure to make more RBC's contributed to this woman's discomfiture is questionable. Headache was typical of previous migraine. Phlebitis may have been precipitated by dehydration and rough littering.

Nonetheless it is wise for women to look to their iron stores before tackling a big mountain. Premedication with iron is not necessary for brief trips to high places since production of new RBC's takes about a week, but it should be taken for two to three months by women deficient in iron if stays above 10,000 feet elevation for several weeks or months are planned. It may even be advisable to continue iron ingestion on the mountain for a week or two since absorption increases once at high altitude.[3] Restoration of iron stores will assist in acclimatization [15, 16] and will add a margin of safety should internal bleeding occur as in the first case or should major hemorrhage from injuries occur and rescue is not immediately possible.

SUMMARY

A 23-year-old Japanese woman bled severely from a duodenal ulcer at 17,700 feet elevation on Denali. Hemoglobin level at a hospital sixteen days after onset of bleeding was 3.8 g/100 ml. She survived without major signs of oxygen deprivation.

A 48-year-old woman with iron deficiency failed to increase her hematocrit during a climb to the top of Denali. She suffered headache, vomiting, and thrombophlebitis, but these illnesses were probably unrelated to her failure to make more blood.

Iron should be administered to women deficient in iron who plan to spend several weeks or months at high altitude.

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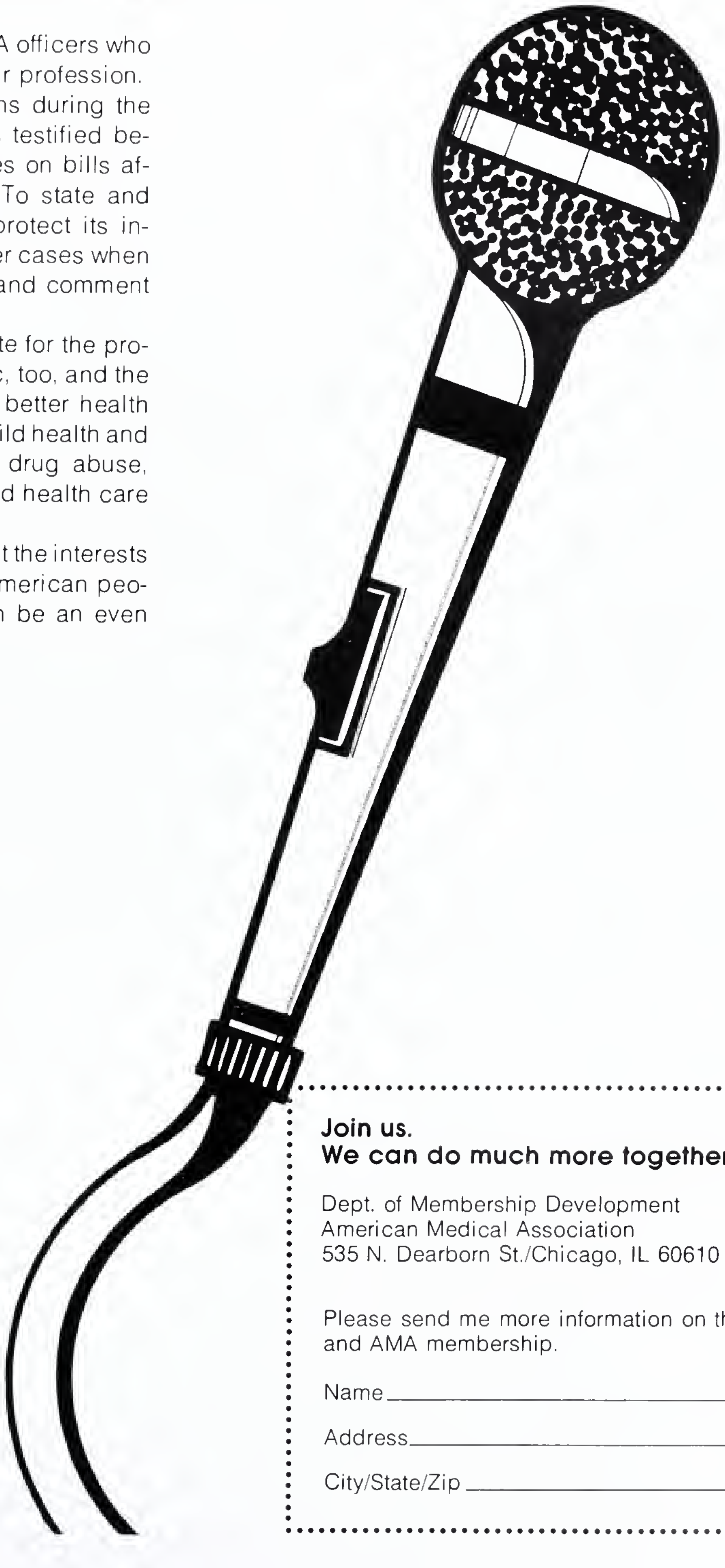

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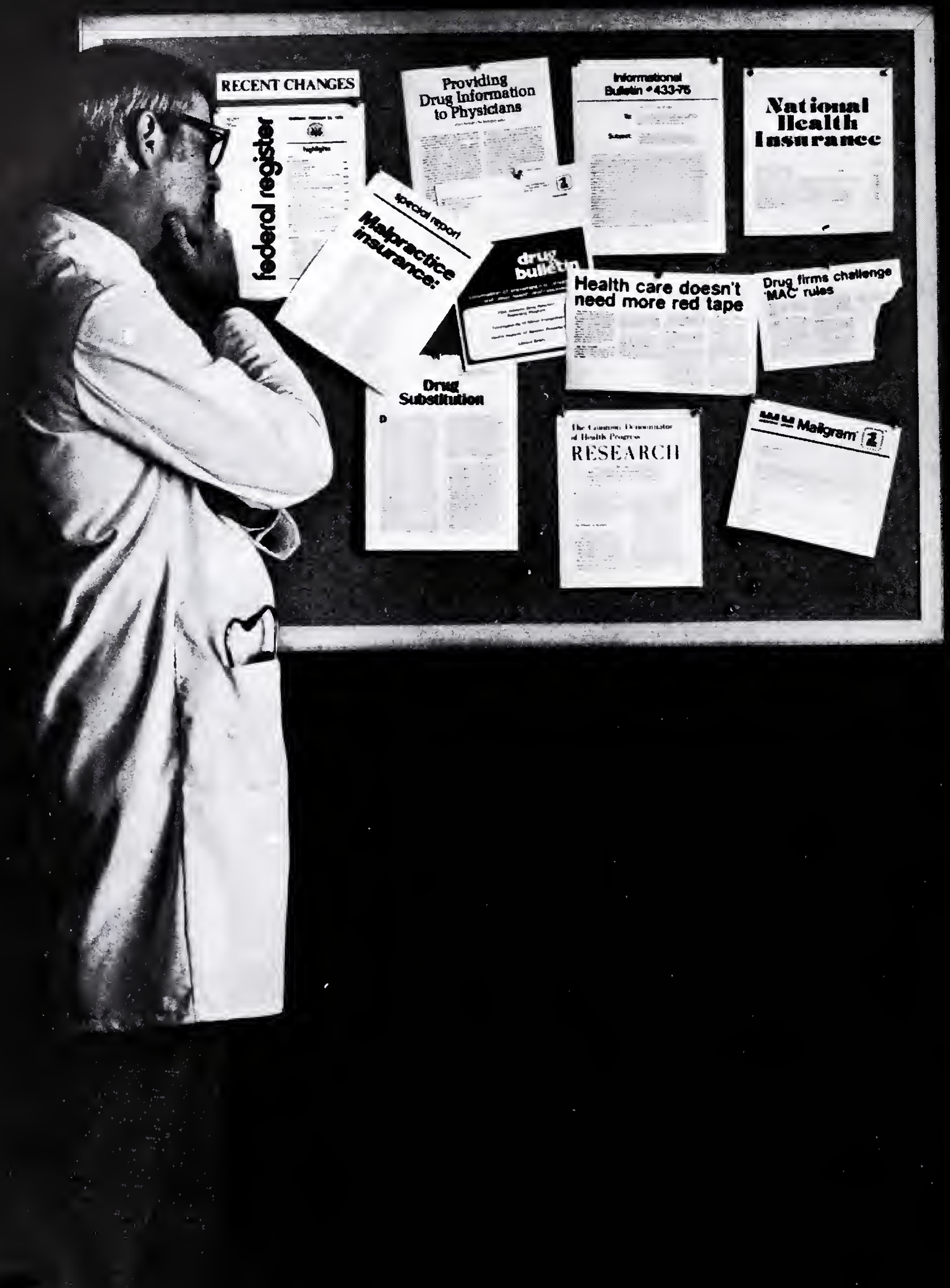
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THERE ARE A LOT OF PEOPLE GETTING BETWEEN YOU AND YOUR PATIENT.

Medicine today is in the spotlight, subjected to all kinds of scrutiny. Your control over patient therapy is being monitored, judged and occasionally abrogated, sometimes by unknown third parties.

The worry is that in the wake of this focus, the relationship between you and your patient will be weakened, without offsetting benefits. Consider three examples:

Drug substitution In most states, pharmacy laws, regulations or professional custom stipulate that your non-generic prescriptions be filled with the precise products you prescribe. But in the last five years, a dozen or more State laws have been changed, permitting the pharmacist in most cases to select a product of the same generic drug to fill any prescription.

Ironically, this dilution of physician control has taken place against a background of growing evidence that purportedly equivalent drug products may be inequivalent, since neither present drug standards nor their enforcement are optimal. In fact, the FDA itself says it has not enforced the same standards for hundreds of "follow-on" products that it had applied to the original NDA approvals. Thus physician control over patient therapy is being eroded with a risk that patients may be exposed to drugs of uncertain quality.

The major advertised claim for substitution is reduced prescription prices for consumers. Yet no documentation of any significant savings has been produced.

MAC Maximum Allowable Cost, MAC for short, is a Federal regulation designed to cut the Government's drug bill by setting price ceilings for drugs dispensed to Medicare and Medicaid patients. Unless the prescriber certifies on the prescription that a particular product is medically necessary, the Government intends to pay only for the cost of the lowest-priced, purportedly-equivalent, generally-available product. The effect of the program may be that elderly and indigent patients will be restricted to products which someone in Washington believes are priced right. Practicing doctors will have little to say about administration of the program, since Government will have absolute authority to make its choices stick.

The drug lag The future of drug and device research depends upon a scientific and regulatory environment that encourages therapeutic innovations. The American pharmaceutical industry annually is spending more than $1 billion of its own funds and evaluating more than 1,200 investigational compounds in clinical research. Disease targets include cancer, atherosclerosis, viruses and central nervous system disorders, among others. But there is a major barrier to the flow of new drugs to your patients: The cost of the research is more than ten times what it was, per product, in 1962; and whereas governmental clearance of new drug applications took six months then, it commonly consumes two years now.

The FDA needs adequate time, of course, to consider data. But it is equally clear that the present approval process contributes to needless delay of needed therapy. That's why the increased efficiency of the drug approval process is vital to all our futures.

If these issues concern you, we suggest that you make your voice heard—among your colleagues and your representatives in State legislatures and in Washington.

It could make a difference in your practice tomorrow.

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PRESIDENT'S PAGE

David Beal, M.D.

A house divided is known to be a house in jeopardy. The physicians of Alaska are divided!

The members of the Alaskan medical community have adopted several quite different viewpoints concerning the new M.I.C.A. law. Each individual physician sees his position as the only rational one, and advocates others adopting his viewpoint.

From the beginning there was never unanimity of opinion on either the cause of the insurance problem or its solution. When M.I.C.A. was formed by the Legislature, a few were strongly opposed to the mandatory provision of the law, but the majority were reluctantly willing to accept it if the other provisions, such as statute of limitations, were included. As the law was implemented by the M.I.C.A. Board of Governors, more physicians became aware of the dangers of this type of state-controlled organization and could not, or would not, support it. As the Board has continued to function, many more physicians have quickly seen that this organization is incapable either of operating as a sound business or of protecting the interests of its clients as a whole, and have found themselves unable to join the inefficient, insensitive, and probably failing plan.

Whereas insurance once was thought necessary for a physician to practice, many are now relieved by not having it. On the other hand, others are still fearful to be without insurance and have purchased M.I.C.A. and hope to force their colleagues to do the same. Many physicians have clandestinely applied pressure to various legislators and other members of the government in order to pursue their own goals. Since this is basically a minority position, its chance of success is questionable. Unfortunately, this type of action can only work to destroy the profession's creditability. Only open discussion of all issues will help to find a solution to our problems.

It seems that some alternative must be found to allow physicians the mental freedom they need to practice good medicine. The answer does not seem to be insurance as we have known it in the past, but might be found in the type of organization called "MEDICAL PROTECTIVE ASSOCIATION." This type of an association has been functioning elsewhere for a period of a year or more and seems to be more than adequate to handle the problems of medical malpractice litigation. It seems clear that as a group we are destined to be divided over this malpractice insurance issue. Therefore, we are not readily going to find a solution by rehashing the old issues and answers, and must hope that an alternative, which can be supported by a significant majority and which will preserve the freedom of practice, can be found. Your Alaska State Medical Association is looking into the formation of a Medical Protective Association. If this alternative is found to be financially viable and based on sound principles that will allow physicians to practice unencumbered by fear, we may finally achieve a majority consensus. This also could provide us with an alternative in our discussion with the Legislature, and give them additional reason to appeal the present offensive legislation. I would encourage all members to seriously become involved in a search for an answer. For without a concerted and unified effort the Alaskan medical community will remain divided. □

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RESOLUTIONS OF THE ASMA IN FAIRBANKS

Failed 25 to 5
Alaska State Medical Association
Resolution No. 77-1
Submitted By: David Beal, M.D.
Subject: Special Assessment

RESOLVE that the Alaska State Medical Association members assess themselves $100 for the calendar year of 1977 for legislative action. This is to insure a year-round lobbyist and money for legislative committee input at critical times.

Passed as Amended
Distribution: Legislative Committee
Alaska State Medical Association
Resolution No. 77-2
Submitted By: David Beal, M.D.
Subject: Tort Reform

RESOLVE that the Legislative Committee join forces with other professional groups especially members of the legal profession for a combined effort for tort reform. These tort reforms should be directed to limitation of discovery, limitation of awards, limitation of awards for pain and suffering, and limitation of attorney's contingency fees.

Passed as Amended
Distribution: Ad Hoc Committee — Douglas Smith, Chairman
Alaska State Medical Association
Resolution No. 77-3
Submitted By: David Beal, M.D.
Subject: Defense Association

RESOLVED that the Alaska State Medical Association immediately investigate the formation of a defense association.

Passed
Distribution: Letter to state and federal agencies insurance carriers
Alaska State Medical Association
Resolution No. 77-4
Submitted By: Henry Storrs, M.D.; endorsed by the Fairbanks Medical Association
Subject: Discharge Summaries and Operative Reports

WHEREAS paper work is an abomination to the physician as well as to others, and

WHEREAS some government agencies are requesting duplicate and triplicate discharge summaries and operative reports before making payment, and

WHEREAS these reports are all identical and all on the hospital record, and

WHEREAS there is no need to receive the identical report from the hospital, the surgeon, the assistant and another from each consultant, now therefore be it

RESOLVED that the Alaska State Medical Association request the state and federal agencies and other insurance carriers to be satisfied with one report per episode from each hospitalized patient which discharge summary or operative report may be obtained from the hospital, and be it

FURTHER RESOLVED that unless these reports are necessary for a specific review purpose that they be satisfied with the name of the procedure or diagnosis.

Failed
Alaska State Medical Association
Resolution No. 77-5
Submitted By: Anchorage Medical Society
Subject: MICA Award

WHEREAS, the insidious and malignant nature of the Medical Indemnity Corporation of Alaska was not evident early in its inception and evolution, and

WHEREAS, Mr. Chuck Flynn instantly disclosed and focused the danger with his infamous slogan "Your pockets are our pockets,"

BE IT RESOLVED that Mr. Flynn be honored by the ASMA's "Most Beloved Lawyer of the Year" Award, and

FURTHER RESOLVED that upon MICA's demise, the above slogan be inscribed upon its headstone.

Passed as Amended
Distribution: Convention Committee
Alaska State Medical Association
Resolution No. 77-6
Submitted By: David Spence, M.D.
Subject: Fourth Alaska Health Congress

WHEREAS, the first three Health Congresses were successful in creating a sense of community and purpose among health care providers of a broad variety of disciplines, and

WHEREAS, a fourth Alaska Health Congress did not materialize, partly because the Alaska State Medical Association chose to have its 1975 Annual Meeting apart from the other health disciplines, and

WHEREAS, the Alaska Public Health Association is calling for a fourth Health Congress in Alaska in the spring of 1978 with the possible themes of "Prevention of Disease" or "Continuity of Care," therefore

BE IT RESOLVED, that the Alaska State Medical Association consider holding its 1978 Annual Conven-

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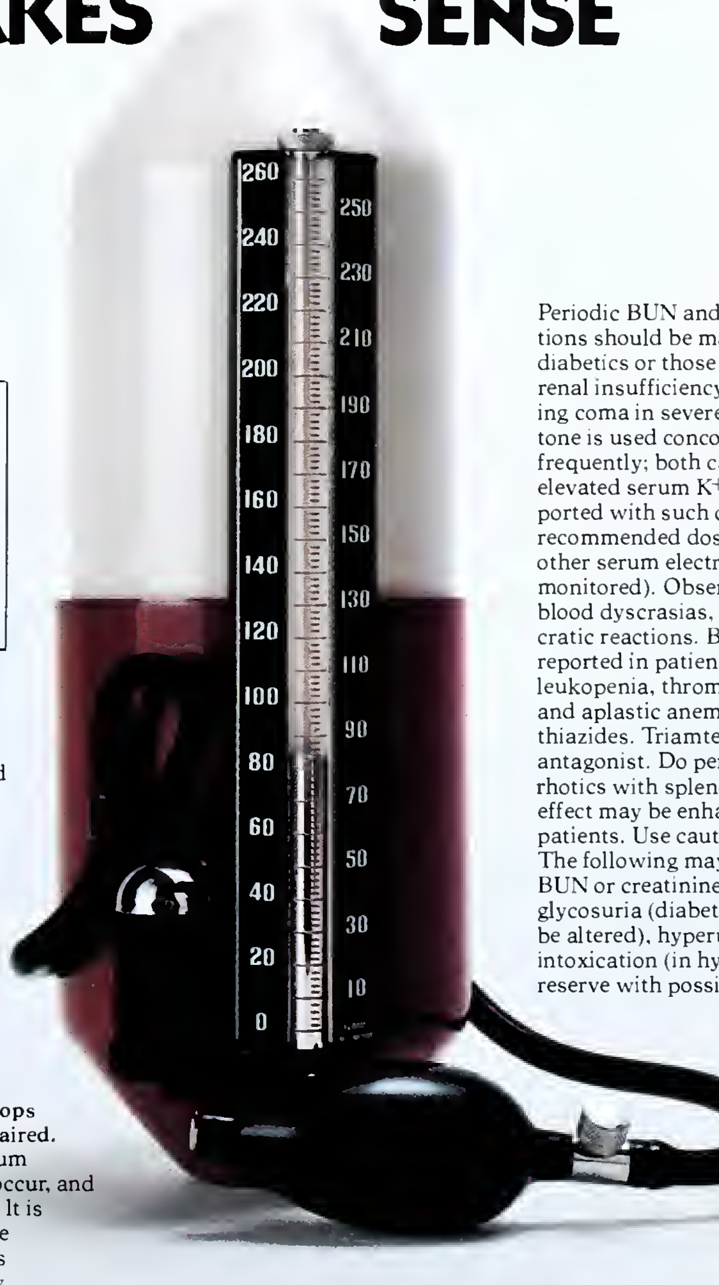

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Precautions: Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spironolactone is used concomitantly, determine serum K^+ frequently; both can cause K^- retention and elevated serum K^+. Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded, in the other serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with thiazides. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Antihypertensive effect may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis.

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Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone.

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Contraindications: Sulfonamide hypersensitivity; pregnancy at term and during nursing period; infants less than two months of age.

Warnings: Safety during pregnancy has not been established. Sulfonamides should not be used for group A beta-hemolytic streptococcal infections and will not eradicate or prevent sequelae (rheumatic fever, glomerulonephritis) of such infections. Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been reported and early clinical signs (sore throat, fever, pallor, purpura or jaundice) may indicate serious blood disorders. Frequent CBC and urinalysis with microscopic examination are recommended during sulfonamide therapy. Insufficient data on children under six with chronic renal disease.

Precautions: Use cautiously in patients with impaired renal or hepatic function, severe allergy, bronchial asthma; in glucose-6-phosphate dehydrogenase-deficient individuals in whom dose-related hemolysis may occur. Maintain adequate fluid intake to prevent crystalluria and stone formation.

Adverse Reactions: *Blood dyscrasias* (agranulocytosis, aplastic anemia, thrombocytopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia); *allergic reactions* (erythema multiforme, skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis); *gastrointestinal reactions* (nausea, emesis, abdominal pains, hepatitis, diarrhea, anorexia, pancreatitis and stomatitis); *CNS reactions* (headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo and insomnia); *miscellaneous reactions* (drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L.E. phenomenon). Due to certain chemical similarities with some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia as well as thyroid malignancies in rats following long-term administration. Cross-sensitivity with these agents may exist.

Dosage: Systemic sulfonamides are contraindicated in infants under 2 months of age (except adjunctively with pyrimethamine in congenital toxoplasmosis). *Usual adult dosage:* 2 Gm (2 DS tabs or 4 tabs or 4 teasp.) initially, then 1 Gm *b.i.d.* or *t.i.d.* depending on severity of infection.

Usual child's dosage: 0.5 Gm (1 tab or teasp.)/20 lbs of body weight initially; then 0.25 Gm/20 lbs *b.i.d.* Maximum dose should not exceed 75 mg/kg/24 hrs.

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tion at a time and place suitable to the mutual promotion of a Fourth Alaska Health Congress.

Tabled
Reconsidered and Tabled Indefinitely

Alaska State Medical Association

Resolution No. 77-7
Submitted By: Robert Whaley, M.D.
Subject: HR1818 or SB218, National Health Insurance

WHEREAS, this organization wishes strongly to resist forces tending toward the socialization of medicine; with its concomitant loss of individual freedom of both patient and physician with the associated degradation of personal values and the provision of medical care; and with the inevitable escalated cost to the public in both money and convenience; and

WHEREAS, Federal HR1818 or SB218 which was promulgated by the American Medical Association as a compromise to those social forces noted above, and

WHEREAS, said HR1818 or SB218 includes many features which we hold abominable, and

WHEREAS, we feel it is essentially a surrender of most values essential to personal, high quality, economic medical care; now therefore

BE IT RESOLVED that the ASMA express its opposition to the features of HR1818 or SB218 and that the American Medical Association through its delegates, and otherwise, withdraw support for this bill.

Passed as Amended
Distribution: Legislative Committee
Department of Health & Social Services

Alaska State Medical Association

Resolution No. 77-8
Submitted By: Robert Whaley, M.D.
Subject: Alaska Statute 14.30.125 and Regulation 4AAC 06.050

WHEREAS, Alaska Statute 14.30.125 and Regulation 4AA 06.055 exempt school children in Alaska from immunization otherwise required if such immunization is certified injurious by "a physician licensed to practice in the state"; and

WHEREAS, the intent of the Statute and Regulation is clearly to have such certification made by someone competent and trained in medicine, to wit a physician; and

WHEREAS, the above rules have been interpreted to include others having a doctorate of degree other than in medicine, thus circumventing the intent and common sense of these rules; now therefore

BE IT RESOLVED that the Regulation be rewritten to substitute the work "physician" for "doctor of medicine or osteopathy licensed in the State or exempt from such licensure."

Passed
Distribution: Convention Committee

Alaska State Medical Association

Resolution No. 77-9
Submitted By: Douglas G. Smith, M.D.
Subject: Annual Meeting

BE IT RESOLVED that the annual business meeting of the Alaska State Medical Association be limited to three days and encompass a weekend, and

BE IT FURTHER RESOLVED that the scientific program of ASMA be held at a place and time at the Discretion of the Council or Executive Committee.

Passed
Distribution: Physician Legislators

Alaska State Medical Association

Resolution No. 77-10
Submitted By: Milo Fritz, M.D.
Subject: Physician Legislators

WHEREAS, no one can influence Alaska Legislators to a greater degree than a member of the Alaska State Legislature, and

WHEREAS, upon occasion one or more members of the Alaska State Medical Association are or have been members of this politically all-powerful body, and

WHEREAS, most of the officers and membership are ignorant of the power and influence wielded by M.D. Legislators, and

WHEREAS, on one occasion the President of the Alaska State Medical Association refused a physician legislator the opportunity of making his preposed report to the members of the ASMA at the Annual Meeting, be it therefore

RESOLVED that Alaska Legislators who are members of the ASMA be invited by the President of the ASMA to give a report as early on the first day of the Annual Meeting as possible; and be it further

RESOLVED, that at least half the Legislator physician's travel cost be paid by the Alaska State Medical Association.

Mail Poll — 77 for, 54 against
Passed by House of Delegates 14 to 13
Reconsidered and Failed 19 to 12

Alaska State Medical Association

Resolution No. 77-11
Submitted By: Milo Fritz, M.D. and Paul Isaak, M.D.
Subject: AMA Union

WHEREAS, the nation's physicians have been under increasing attack by a few consumer groups, TV, radio and especially by the federal government for the high and continually rising cost of health care, and

WHEREAS, the increasing cost of health care is being singled out by these groups as though it were the only aspect of our economy subject to inflation and thereby incurring public and congressional concern to a greater and greater degree, and

WHEREAS, physicians and their various organizations have been relatively ineffective in combating the constant barrage of inuendos and accusations by the federal government especially, but also ineffective against other groups, and

WHEREAS, most importantly, our freedom to practice medicine the way we think best for our patients is being progressively jeopardized by bureaucratic encroachment, and

WHEREAS, interns and residents of our profession have had to resort to union bargaining power to have an effective voice in establishing more reasonable working conditions and pay than employers have been willing to offer,

BE IT THEREFORE RESOLVED that the American Medical Association seriously consider forming a union which has the authority to bargain and negotiate on behalf of its members with any agency or third party desiring services from the membership.

Withdrawn by Dr. Kinn

Alaska State Medical Association

Resolution No. 77-12
Submitted By: William Kinn, M.D.
Subject: Malpractice

WHEREAS, the Alaska State Medical Association activities in the recent legislative session as it related to the malpractice insurance issue was unsuccessful and politically harmful to ASMA,

WHEREAS, strong, unified action by the ASMA and its members is the only hope of improving the malpractice insurance problem,

WHEREAS, there are many areas of consensus among ASMA members as it relates to the malpractice insurance problem, and

WHEREAS, the main divisive issue among ASMA members has been the elimination of an effective MICA; therefore be it

RESOLVED that the ASMA encourage its members to participate in MICA, and be it

FURTHER RESOLVED that the ASMA encourage a rapid determination of the various suits challenging the constitutionality of MICA, and

BE IT FINALLY RESOLVED that ASMA political energies be directed to promoting these features of the malpractice Commission's recommended legislative and constitutional solutions that were not implemented in the original malpractice law.

Failed 20 to 6

Alaska State Medical Association

Resolution No. 77-13
Submitted By: Winthrop Fish, M.D.
Subject: Mr. Gardiner

WHEREAS, SB326 and HB484 enjoyed the unequivical support of the ASMA and the State Administration, passed the Senate by a heavy majority and was supported by a majority of the House of Representatives, and

WHEREAS, the minority report from Ketchikan in conflict with the resolutions of the ASMA, continued to support a mandatory and exclusive mechanism for medical malpractice insurance, and

WHEREAS, the House Representative from Ketchikan, Mr. Gardiner, through brilliant parliamentary stratagem did block a floor vote and passage of HB484 thus presumably representing his own physician constituency, but in fact frustrating the broad public interest, and

WHEREAS, consequent failure of relief for a substantial majority of the state's physicians is leading to internal conflict, prolonged litigation, the clear potential for major disruptions in medical care delivery and patterns of medical practice within the state, and the real possibility of legal sanction against some of the state's long established and most honored physicians,

BE IT RESOLVED, that the Alaska State Medical Association recognize Mr. Gardiner's extraordinary performance in successfully representing his minority constituency,

BE IT FURTHER RESOLVED, that parliamentary obstruction of a clear mandate, in consideration of special interest, should not bond the Administration to an inexorable course with unpredictable destructive consequence.

Passed
Distribution: To State Administration

Alaska State Medical Association

Resolution No. 77-14
Submitted By: Winthrop Fish, M.D.
Subject: Harassment

WHEREAS, the Alaska physician community is a valuable resource representing in conglomerate literally thousands of postgraduate education years and a training investment in current terms of some one hundred million dollars ($100,000,000),

WHEREAS, medical organizations have developed within the state medical care delivery of the highest quality, and

WHEREAS, there is a surfeit of federal and other agencies offering harassment of the medical profession in general,

BE IT RESOLVED, that the public would be badly served by unnecessary additional harassment of the medical profession from its own State Administration.

Passed as Amended
Distribution: Dr. Brownsberger for appropriate distribution

Alaska State Medical Association

Resolution No. 77-15
Submitted By: Keith Brownsberger, M.D.
Subject: Health Care Costs

WHEREAS, the rapidly increasing cost of medical care is being blamed on the medical profession, and

WHEREAS, the major cause of the increase in cost of medical care is due to increased salaries of health care workers, increasing availability of expensive diagnostic test, and expensive medical and surgical therapy, and increasing cost of hospital construction, and medical supplies, and

WHEREAS, the attempts of the government agencies to cut costs of medical care will result in decrease medical services to patients,

RESOLVE, that the Alaska State Medical Association promote the prevention of illness and injury as the most effective way of decreasing medical care costs.

Passed
Distribution: Senators and Representatives in Congress
American Medical Association

Alaska State Medical Association

Resolution No. 77-16
Submitted By: Keith Brownsberger, M.D.
Subject: PL 93-641

WHEREAS, the Federal Government has indicated by the passage of PL 93-641 that long-term comprehensive health planning is important, and

WHEREAS, the Federal Government is responsible for a large proportion of the medical care in Alaska,

RESOLVE, that the Alaska State Medical Association encourage the Federal Government to include their own medical care programs such as the Veterans Administration, the Public Health Service, and the Military Services under PL 93-641.

Passed Unanimously

Alaska State Medical Association

Resolution No. 77-17
Submitted By: ASMA Executive Committee
Subject: Thanking the Speakers

RESOLVE, that the Alaska State Medical Association thank the speakers for their participation and excellent presentations at the 32nd Annual Meeting of the Association.

Passed Unanimously

Alaska State Medical Association

Resolution No.	77-18
Submitted By:	ASMA Executive Committee
Subject:	Thanking the Exhibitors and Contributors

RESOLVE, that the Alaska State Medical Association thank the Exhibiting companies and those Contributors for their support and participation in the 32nd Annual Meeting of the ASMA.

Passed Unanimously

Alaska State Medical Association

Resolution No.	77-19
Submitted By:	ASMA Executive Committee
Subject:	Thanking the Fairbanks Medical Association

RESOLVE, that the Alaska State Medical Association thank the Fairbanks Medical Association for their excellent planning and participation in making the 32nd Annual Meeting of the ASMA a successful and enjoyable convention.

Passed 17 to 12

Alaska State Medical Association

Resolution No.	77-20
Submitted By:	Wayne Myers, M.D.
Subject:	Health System Agency Boards

WHEREAS, effective representation of practicing physicians on Health System Agency Boards and on the Statewide Health Coordinating Council is of great import, and

WHEREAS, effective service on such boards is quite time-consuming

BE IT RESOLVED, that the ASMA shall recompense physician members who suffer loss of income by serving on these boards/council at a rate of $25 per half-day spent in attendance of formally called meetings of these organizations or their standing committees; and

BE IT FURTHER RESOLVED, that component medical societies are urged to match this compensation for a total rate of $50 per half-day.

Passed

Alaska State Medical Association

Resolution No.	77-21
Submitted By:	Paul Isaak, M.D.
Subject:	ASMA Suit

WHEREAS, at a Special Meeting, January 15, 1977, of the Alaska State Medical Association, a resolution was passed by a majority of the members present to remove the mandatory and exclusive aspects of M.I.C.A., and

WHEREAS, a new bill was introduced in both houses to eliminate the mandatory and exclusive portions of M.I.C.A., and

WHEREAS, this legislation was effectively blocked by one legislator and is now a dead issue until the next legislative session,

BE IT RESOLVED, that the Alaska State Medical Association retain council to consider filing suit against the State of Alaska regarding M.I.C.A.

Passed Unanimously

Alaska State Medical Association

Resolution No.	77-22
Submitted By:	ASMA House of Delegates
Subject:	Thanking the Staff of Traveler's Inn

RESOLVE, that the Alaska State Medical Association thank the Staff of Traveler's Inn for the expertise they exhibited in their planning and coordinating arrangements for the 32nd Annual Convention of the Alaska State Medical Association which contributed greatly toward a very successful meeting.

COMPUTER MEDICINE CLINICS

September 19-21, 1977
Sheraton-Park Plaza Hotel
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Co-sponsored by the Society for Computer Medicine and the office of Graduate and Continuing Education of Yale University School of Medicine, this 2½-day course is designed for practicing physicians, nurses, administrators, and others interested in a basic introduction to the use of computers in patient care. No prior computer experience is necessary. The course begins with fundamental ideas about the computer and systems, discusses a number of wide-ranging applications in the office and hospital, and ends with some hands-on workshops. It is acceptable for 15 credit hours in Category 1 for the AMA's Physicians Recognition Award and an equal number of elective hours from the American Academy of Family Physicians. Those wishing more information should contact Michael A. Jenkin, M.D., Society for Computer Medicine, (612) 831-5055. The address is 5100 Edina Industrial Blvd., Suite 231F, Edina, MN 55435.

LIBRARY MOVES

The Alaska Health Sciences Library began moving on June 21, 1977 to the building housing the University of Alaska, Anchorage, Library at 3211 Providence Drive, Anchorage 99504. It continues its old telephone number, 279-2151, and will have one other business line (to be announced) plus two University extensions, 272-5522 (ext. 349 and 359).

The Library now occupies the beginning of what will lead to larger quarters as soon as the School of Nursing can move to the new Health Occupations Building and vacate the additional space designated for the Library.

AHSL remains a separate statewide service, administered by the Division of State Libraries and Museums and funded by the Division, the Alaska Area Native Health Service of the U. S. Public Health Service, the University, and grants, contracts, and contributions.

AHSL serves all health care providers in Alaska, all teachers, researchers, practitioners, and students in the health sciences in Alaska, and all members of the University of Alaska system. Its new location will permit growth of collections and services and sharing of resources available from the University Library.

Users and supporters of the Library are invited to visit its new quarters. The Library presently is open Mondays through Thursdays, 7:00 a.m. to 6:00 p.m., and Fridays, 7:00 a.m. to 5:00 p.m.

MEETING NOTICE
(20 May 1977)

FOURTH INTERNATIONAL SYMPOSIUM ON CIRCUMPOLAR HEALTH

NOVOSIBIRSK, U.S.S.R. — FALL 1978

Through Otto Schaefer, M.D., FRCP (C), former Canadian Secretary General for the 1974 International Symposium held at Yellowknife, C.N.W.T., we have been informed that V. Kaznacheyev, President of the Siberian Branch of the Academy of Medical Sciences, has indicated in writing that the Fourth International Symposium will be hosted by Soviet scientists at Novosibirsk in the fall of 1978. Present indications are that Soviet facilities can handle only 35-40 foreign scientists, of whom 25 will come from North America. Detailed information about travel arrangements and accommodations is not presently available.

For planning and coordinating purposes, inquiries and titles of presentations in the following Themes (free translation of the Tentative Program Outline transmitted by the Soviet Organizers), or for other areas relative to Northern Health, are requested now. Abstracts will be due by 30 December 1977. Final selection of North American attendees will be made by a combined U. S.-Canadian Scientific Program Committee.

Themes

I. Organization of Medical Care in Northern Areas.
II. Cooperation in Medical-Biological Research.
III. Adaptive Mechanisms of Native and Immigrant Populations in the North.
IV. General Pathology and Morbidity Patterns found in Native and Immigrant Populations in the North.
V. Specific Pathology, Clinical Manifestations, Diagnosis and Therapy of Important Health Problems in Northern Populations.
VI. Environmental Hygiene and Human Ecology in the North.

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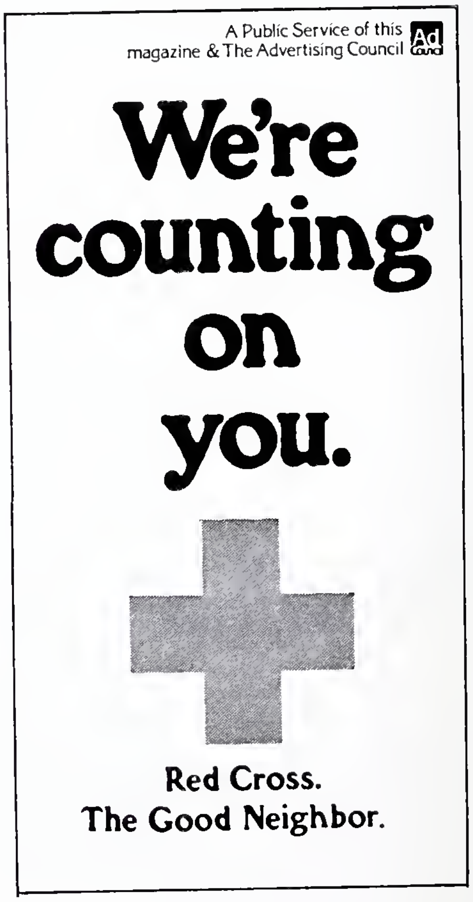
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1930 — 1977

"Ollie" Dunn, Anchorage dermatologist, died after a lengthy illness on Easter Day. She leaves her husband, Dr. Wallace Dunn, four children, ages 9-19, and her Korea-born parents who live in the Anchorage home.

Ollie was born and reared on Oahu, Hawaii. She attended Oregon State University and gained her medical degree at the University of Oregon. She came to Alaska with Wally in 1957, and was a general medical officer at the United States Public Health Service Hospital in Anchorage for a year before going to Chicago for training in dermatology at Cook County Hospital, 1961-1964, while Wally studied otolaryngology there.

The Dunns then returned to Anchorage and Ollie began dermatology practice which she continued until her death. She was concomitantly consultant in skin diseases to the USPHS. Ollie was particularly skillful in the management of acne and fungus diseases of the skin. She was an expert in finding and eradicating the skin mite *Demodex follicularis*, which she believed to be the cause of acne rosacea. Ollie was held in high esteem by her patients for her warmth and her persistence. In a field of medicine characterized by empiricism she discriminated better than most between fact and voodoo.

Apart from her busy practice and home life Ollie enjoyed fishing and music. She sang with the Sweet Adelines.

One Christmas her Cook County Hospital patients gave her twenty-five presents. They knew her worth. So did we.

NEW GIFTS TO THE ALASKA HEALTH SCIENCES LIBRARY

Sustaining Donors

Alaska Plastic & Reconstructive Surgery Associates (Donald B. Addington, M.D., and Robert E. Mallin, M.D.), Anchorage, $100
Alaska Psychiatric Association, $250
Anchorage Medical & Surgical Clinic (Michael B. Armstrong, M.D.; Robert B. Wilkins, M.D.; Mary K. Feirtag, M.D.; Douglas G. Smith, M.D.; Asa L. Martin, M.D.; and William H. Ragle, M.D.), $300
The Children's Clinic (J. Nesbitt, M.D.; Dion Roberts, M.D.; and Gerry J. Schriever, M.D.), Anchorage, $100
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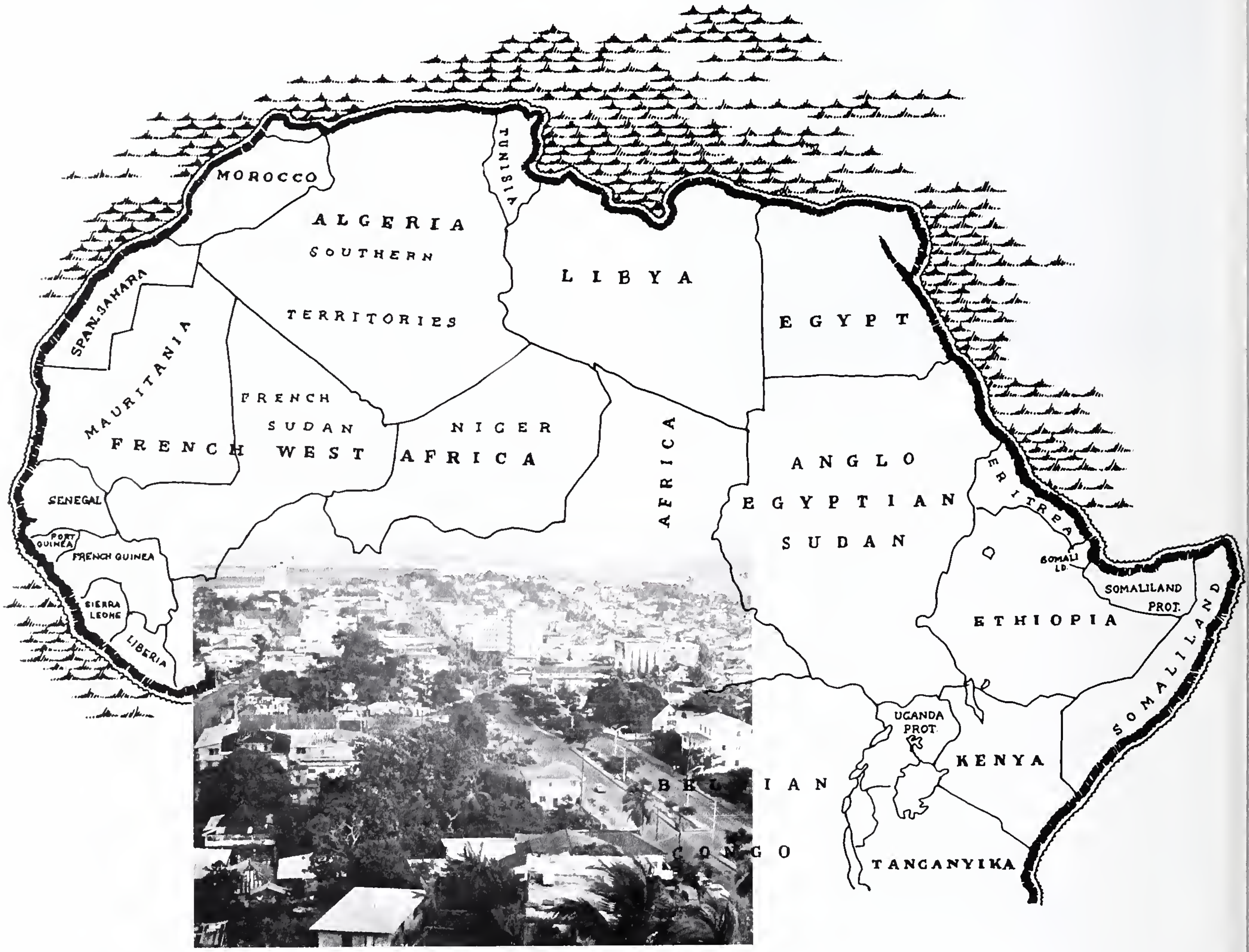
Others who wish to contribute may make checks payable to the Alaska Hospital Research & Education Foundation, and send them to the Alaska Health Sciences Library, 3211 Providence Drive, Anchorage, Alaska 99504.

In 1820, a few Navy men assisted in a birth... that of a nation.



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And as the United States is celebrating its Bicentennial, the Navy is saluting those of its men who contributed to our country's historic efforts toward the betterment of mankind.

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- Contraindicated during pregnancy and the nursing period. During therapy, maintain adequate fluid intake; perform CBC's and urinalyses with microscopic examination.

Before prescribing, please consult complete product information, a summary of which follows:

Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms: *Escherichia coli, Klebsiella-Enterobacter, Proteus mirabilis, Proteus vulgaris, Proteus morganii.* **It is recommended that initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination.** *Note:* The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

Also for the treatment of documented *Pneumocystis carinii* pneumonitis. To date, this drug has been tested only in patients 9 months to 16 years of age who were immunosuppressed by cancer therapy.

The recommended quantitative disc susceptibility method (*Federal Register,* 37:20527-20529, 1972) may be used to estimate bacterial susceptibility to Bactrim. A laboratory report of "Susceptible to trimethoprim-sulfamethoxazole" indicates an infection likely to respond to Bactrim therapy. If infection is confined to the urine, "Intermediate susceptibility" also indicates a likely response. "Resistant" indicates that response is unlikely.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; pregnancy; nursing mothers; infants less than two months of age.

Warnings: Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for infants less than two months of age.

Urinary Tract Infections: Usual adult dosage—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days.

Recommended dosage for children—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. A guide follows:

Children two months of age or older

Weight		Dose—every 12 hours	
lbs	kgs	Teaspoonfuls	Tablets
20	9	1 teasp. (5 ml)	½ tablet
40	18	2 teasp. (10 ml)	1 tablet
60	27	3 teasp. (15 ml)	1½ tablets
80	36	4 teasp. (20 ml)	2 tablets or 1 DS tablet

For patients with renal impairment:

Creatinine Clearance (ml/min)	Recommended Dosage Regimen
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15-30	½ the usual regimen
Below 15	Use not recommended

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Supplied: *Double Strength (DS) tablets,* each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100. *Tablets,* each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40, available singly and in trays of 10. *Oral suspension,* containing in each teaspoonful (5 ml) the equivalent of 40 mg trimethoprim and 200 mg sulfamethoxazole, fruit-licorice flavored—bottles of 16 oz (1 pint).

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Bactrim has shown high clinical effectiveness in recurrent cystitis as a result of its wide spectrum and distinctive antimicrobial action in the urinary, vaginal and lower intestinal tracts.

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Studies have shown that Bactrim acts against *Enterobacteriaceae* in the bowel without the emergence of resis tant organisms. Thus, Bactrim reduces the risk of introit colonization by fecal uropathogens. It has *no* significant effect on other normal, necessary intestinal flora.

Bactrim fights uropathogens in the urinary tract/vaginal tract/lower intestinal tract

Please see reverse side for summary of product information.

The Measure of a Man

It is not the critic who counts, nor the man who points out how the strong man stumbles, or where the doer of deeds could have done better.

The credit belongs to the man who is actually in the arena; whose face is marred by dust and sweat; who strives valiantly; who errs and may fail again, because there is no effort without error or shortcoming.

But who does actually strive to do the deeds; who does know the great enthusiasm, the great devotion; who spends himself in a worthy cause; who at the best, knows in the end the triumph of high achievement, and who at the worst, if he fails, at least fails while daring greatly, so that his place shall never be with those cold and timid souls who know neither victory nor defeat.

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DAS K. GANDHI

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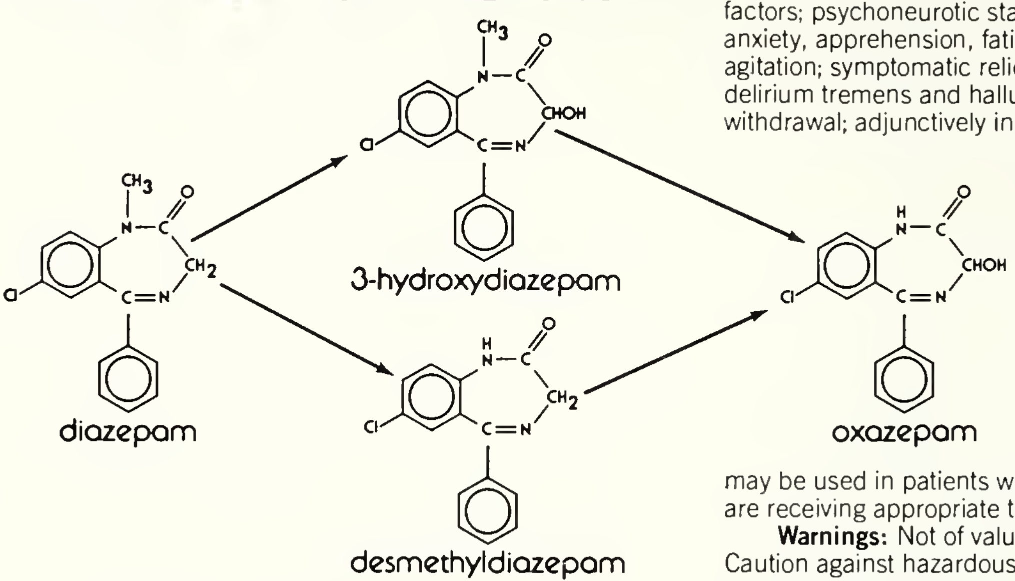
ALASKA MEDICINE

Volume 19, Number 5 September 1977

A pharmacokinetic character all its own



Valium (diazepam) is a benzodiazepine with a distinctive pharmacokinetic profile

The pharmacokinetic profile of Valium is one of the characteristics that sets it apart from other benzodiazepines. Consider, in particular, the metabolic pathway of Valium. The three major metabolites of Valium exhibit significant pharmacologic activity—and so, of course, does the parent substance—diazepam itself. All combine to produce the characteristic clinical response seen with Valium. The response you have come to know, to want and to trust.

Pharmacokinetic studies also demonstrate that Valium has a pattern of absorption, distribution, metabolism and elimination that is reliable and consistent. And, although the pharmacokinetics of a drug cannot, at present, be specifically related to its clinical effects, it is clearly a factor that distinguishes one product from another by providing important insights into how each moves through the patient's body.

Valium® (diazepam) (IV)

2-mg, 5-mg, 10-mg scored tablets

a prudent choice in psychic tension and anxiety

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology; spasticity caused by upper motor neuron disorders; athetosis; stiff-man syndrome; convulsive disorders (not for sole therapy).

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

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Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

ALASKA MEDICINE

Official Journal of the Alaska State Medical Association

1135 Eighth Avenue, Suite 6, Anchorage, Alaska 99501

Volume 19 September 1977 Number 5

ORIGINAL ARTICLE

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ABOUT THE COVER:

"Measure of a Man" is an illuminated manuscript by Bill and Vivi Farnan and hand-screened in a limited edition at their studio in San Francisco. Bill earned his Ph.D. at St. Louis University and Vivi earned her B.F.A. at The University of Arizona. Most of their manuscripts are done in partnership. They have been producing illuminated manuscripts professionally for 10 years and have their work in collections throughout the United States and England. If you would like to inquire about the other titles they have on hand or are interested in commissioning a manuscript, please write: Farnan Studios, P.O. Box 42040, San Francisco, California 94101.

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SUBSISTENCE FOODS: A PHYSICIAN'S PERSPECTIVE ON THE D—2 LAND PROPOSAL

Bob Hurwitz, M.D.

Subsistence hunting of fish, birds and mammals is a deeply personal sociocultural event which forms a major foundation block in the life style of the Aleuts and Eskimos. Prohibiting or significantly limiting this hunting will result in major problems of physical and mental health to native people.

PHYSICAL HEALTH — THE NUTRITIONAL VALUE OF SUBSISTENCE FOODS

Subsistence harvested meats and birds are high in protein and low in fat. There is no fat ribbing seen in store-bought beef; the fat is on the outside of the animal, not in the muscle. This protein is generally of greater nutritional value than its store-bought counterpart. Comparison between agricultural handbook number 8 and the Alaska Dietary Survey of 1957 reveals striking differences. The iron content in sea mammals is 10 to 11 times that found in an equivalent measure of beef. Special preparations such as drying or poking (marinating dry meat or fish in seal oil) elevate the iron content so that herring or silver salmon, when poked, has two to three times the amount of iron per equivalent weight of beef. Not only are subsistence foods generally higher in iron content, they also compare favorably to store-bought foods for vitamin A, thiamine, riboflavin and niacin. Where the vitamin A content of beef per 100 gm is 40 International Units (IU) and of chicken 800 to 900 IU, the vitamin A content of seal oil is 4,860 IU. Where the thiamine content of 100 gm of chicken or beef is 0.03 mgm, that for ptarmigan is 0.16 mgm. The male adult daily requirement for this vitamin is 1.4 mgm. If he were prohibited from catching ptarmigan, in order to fill his daily requirement for thiamine, the Eskimo or Indian male would have to consume twice the amount of store-bought meat. But meat costs many times more than he would spend on fuel and weapons used for hunting ptarmigan and his average per capita income is well below poverty level.

The demanding physical activity inherent in a subsistence life style and the need for high calorie demands to maintain body heat in the Alaskan winter are met adequately in the subsistence diet. Seal oil is 100 percent energy. It is used as a condiment, as a dip for meats and fish, as flavoring for soups as well as a general cure-all. Since it is pure fat it releases nine calories per gram. Protein and carbohydrate release only four calories per gram. Since seal oil is rendered fat it is polyunsaturated and consequently does not predispose to coronary vascular disease. In fact, myocardial infarction is rarely seen in the adult male Eskimo or Indian. Where recent epidemics of Hepatitis A and streptococcus-related nephritis have affected close to 1,000 adults and children this year, fewer than five Eskimos have been hospitalized for heart attack in the past five years. Where there are 14 older people wearing pacemakers in the villages of this region, there are more than 10 times that number of young and middle-aged adults with valvular heart disease caused by rheumatic fever.

The major medical problems in the pediatric age group in this area are not caused by a subsistence diet. Rather they are caused, we think, by the detrimental effects of introducing parts of a westernized diet. Refined carbohydrates such as sugar, candy, pop and gum have appeared in village stores and are indiscriminately abused by children who know no better. The rate of dental decay is astronomical. Comparing recent IHS data for the Bethel area with National Center for Health Statistics DHEW studies of children in 1962-65 reveals that in deciduous teeth the national rate for D (decay) E (extractable or missing) F (filled) are 1.4 D, 0.4 E, 1.2 F. The national DEF ratio is 3.0. In Bethel the rates are 3.6 D, 1.9 E, 2.3 F, and the DEF ratio is 7.9. This shows that although the children in Bethel are receiving more services (filled 2.3 vs. 1.2) the attack rate is higher (3.6 vs. 1.4 decay) and despite dedicated attempts, ground is being lost to tooth decay.

The problem of chronic otitis which congress addressed by allocating separate funds to the Indian Health Service under the Otitis Media Project is likely the result of a radical change in children's diet. Older people who in childhood ate a 90 percent protein diet have perfect teeth and no holes in their eardrums. Younger people whose diet sometimes approaches 90 percent carbohydrate, have much higher incidence chronic otitis media than their elders. The IHS Otitis Media Data system reports 329 children in the Bethel Service Unit are presently awaiting surgery to patch the holes in their eardrums caused by chronic recurrent middle ear infection.

Iron deficiency anemia has long been known to be a major nutritional problem among infants and children in rural Alaska. While the effects of iron deficiency anemia are not fully understood, it is apparent that it does inhibit growth, reduce the body's immune response and possibly interferes with learning in school. The high incidence (50-60 percent male infants, 20-35 percent female infants under one year according to CDC study 1977 of coastal villages in Bristol Bay) of anemia in children under one may be related to feeding canned milk formulas. Breast feeding has decreased in practice. Iron fortified baby formulas are not available in village stores. Another group at high risk for developing anemia is the teenage female whose newly acquired menstrual cycle mandates an increase in daily iron intake to replace monthly losses. CDC found 50 percent of these females in coastal areas to be anemic. These young people should be encouraged to eat more subsistence meats because of their high iron content. Limiting the availability of these foods makes no sense in terms of the health of these girls and if they should marry and become pregnant the problem becomes much more serious.

The State of Alaska sets its own welfare standards. Because living costs are higher in Alaska than down below; payments to eligible families are higher here than in many other states. The food stamp program similarly makes allowances for increased cost of living in the states of Alaska and Hawaii. There is no differential in either program for increased costs of rural versus urban life styles. In fact, prices in the village may be double or more than urban costs. The state welfare system and the Federal Food Stamp program, therefore, tacitly accept the subsistence harvest of foods as major and necessary supplement to the respective programs. If the welfare and food stamp recipient were to encounter limitations of their subsistence harvest, these programs would not yield adequate resources for rural families to exist.

Even if welfare programs were adjusted to provide for higher rural costs, another major problem would exist; most essential foods are unavailable year-round in village stores. Fresh fruits and vegetables are almost unheard of in the bush. Only canned and frozen items can at present be successfully transported and routes of supply are often hazardous, so dependable service is virtually impossible. By late winter many store shelves are emptied, stocks are depleted and people wait for good weather and ice-free water to bring them fresh stores for next year. Food stamps cannot control Alaskan weather. Total dependence on welfare-purchased supplies would yield tragic results if villagers did not lay away subsistence food stores for winter.

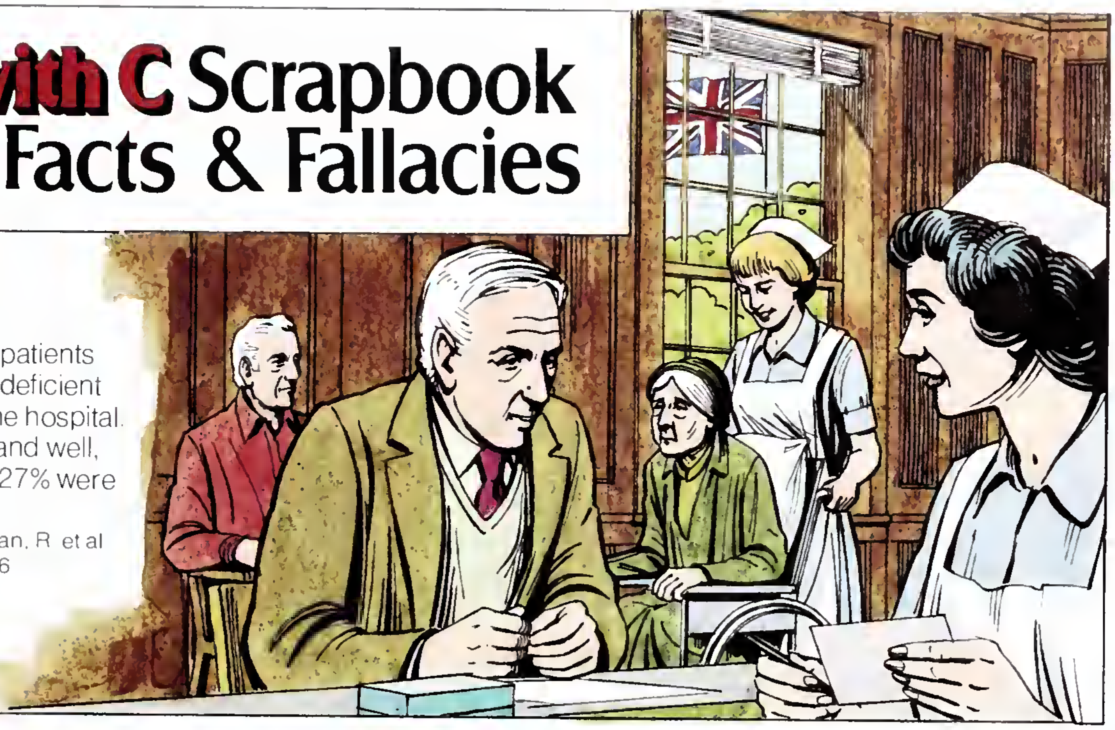
MENTAL HEALTH — THE PERSONAL VALUE OF HUNTING OR GATHERING AND PREPARING SUBSISTENCE FOODS

Food gathering is a family affair. The father who will list his occupation as "hunter" or "fisherman" is often responsible for the hunt but when an older man is present, he will cede to the latter's authority. The eldest is captain of the boat in coastal hunting parties. The young are brought along to watch and learn. In this context the children learn responsibility and observe the decision-making process. The older people teach the young the techniques of the profession. Songs and dances about animals and their relationships to natives teach them the lore. This hunting-teaching strengthens the family unit and provides purposeful activity for both young and old.

Women used to be responsible for making clothes and boots from animal skins. Today some clothes making goes on especially in the fabrication of winter parkas and footwear. But Eskimos no longer wear subsistence-made clothing exclusively; they buy from mail order catalogues. Although she no longer has to make clothes, caring for her household and collecting tundra foods still fills a woman's day. She will pass on skills of collecting greens, berries and eggs to her children and they will help her prepare food for winter storage. In August, the entire household will move to berry camp and there, living in tents, they will hunt, fish and pick over 100 gallons of salmon berries for winter. The family unit is thus strengthened and reaffirmed by subsistence activity.

Technology has made subsistence hunting more efficient; motorized transport and semi-automatic guns make hunting more successful.

The ALLBEE® with C Scrapbook of Vitamin Facts & Fallacies



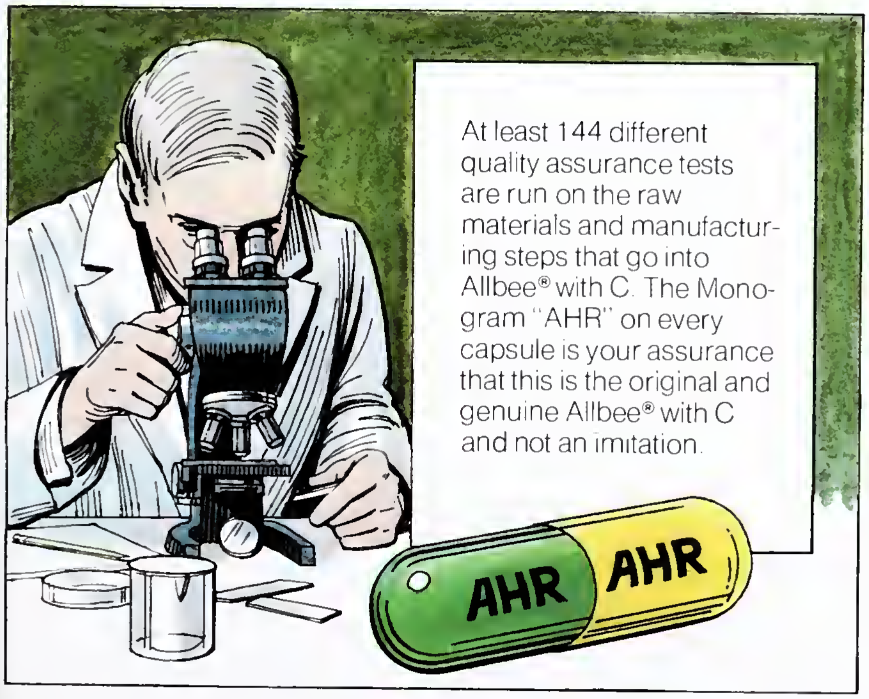
A study conducted among elderly patients in England showed that 41% were deficient in ascorbic acid on admission to the hospital. Even among those living at home and well, or not sufficiently ill for admission, 27% were deficient in ascorbic acid.

Griffiths, L.L., Brocklehurst, J.C., MacLean, R. et al *Diet in Old Age*, Brit. Med. J., 1:739, 1966

The loss of riboflavin in milk in a glass container exposed to sunlight for two hours may be as high as 95%.

Quick freezing of vegetables is accompanied by very little ascorbic acid loss. But blanching, washing, and prolonged standing at room temperatures results in considerable reduction in Vitamin C content.

In World War I a unit of 100 beds per division in the Russian army was set aside for scurvy patients. Yet, only 20 cases of scurvy were reported among all American troops in 1917-18.



At least 144 different quality assurance tests are run on the raw materials and manufacturing steps that go into Allbee® with C. The Monogram "AHR" on every capsule is your assurance that this is the original and genuine Allbee® with C and not an imitation.

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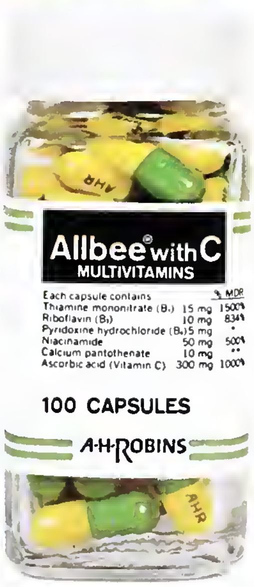
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	each tablet, capsule or 5 ml tsp of elixir (23% alcohol)	each Donnatal No. 2 Tablet
Phenobarbital (warning: may be habit forming)	(¼ gr) 16.2 mg	(½ gr) 32.4 mg
Hyoscyamine sulfate	0.1037 mg	0.1037 mg
Atropine sulfate	0.0194 mg	0.0194 mg
Hyoscine hydrobromide	0.0065 mg	0.0065 mg

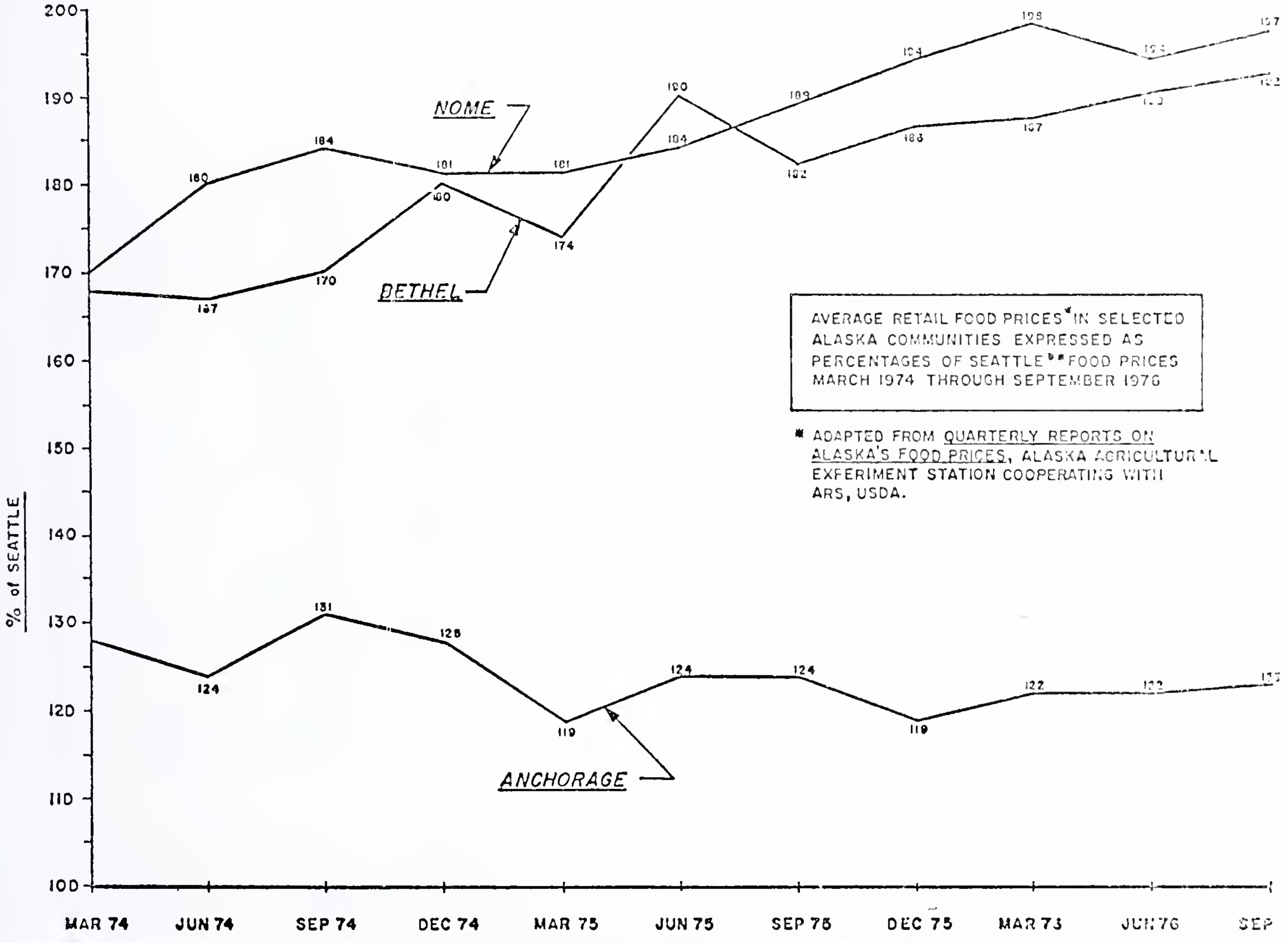
Indications: Based on a review of this drug by the NAS/NRC and/or other information, FDA has classified the following indications as possibly effective: adjunctive therapy in the treatment of peptic ulcer; the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis. Final classification of the less-than-effective indications requires further investigation.

Brief summary. Contraindicated in patients with glaucoma, renal or hepatic disease, obstructive uropathy (for example, bladder neck obstruction due to prostatic hypertrophy) or a hypersensitivity to any of the ingredients. Blurred vision, dry mouth, difficult urination, and flushing or dryness of the skin may occur at higher dosage levels, rarely at the usual dosage.

A·H·ROBINS A H Robins Company, Richmond Virginia 23220

Japanese-made nylon mesh nets revolutionized both commercial and subsistence fishing by producing high yields. Improved technology has resulted in more leisure time and boredom has become a problem. The welfare system has reduced the self-reliance and self-respect of a formerly totally independent and self-reliant people. These forces have contributed to a high rate of alcohol abuse in rural Alaska and high rates of suicide, accidents and violent crime result. It is significant that village originated alcohol treatment and prevention programs always include an emphasis on subsistence life style as well as direct counseling to replace the missing self-esteem and self-fulfillment and to relieve the boredom which all predispose to this disease.

Subsistence hunting and fishing then, not only strengthens the family unit but also provides meaningful work for native people. It fills the human needs for self-reliance, self-realization and self-fulfillment. Placing further limitations on the activities of subsistence food gathering by denying access to or use of lands or by interfering with subsistence harvests can only result in weakening of the family unit and the lessening of personal esteem and fulfillment. In the resulting depravity of boredom, alcoholism and welfare, crime and suicide will flourish in a cultural wasteland.



AVERAGE RETAIL FOOD PRICES* IN SELECTED ALASKA COMMUNITIES EXPRESSED AS PERCENTAGES OF SEATTLE** FOOD PRICES MARCH 1974 THROUGH SEPTEMBER 1976

* ADAPTED FROM QUARTERLY REPORTS ON ALASKA'S FOOD PRICES, ALASKA AGRICULTURAL EXPERIMENT STATION COOPERATING WITH ARS, USDA.

** BASED ON U.S. DEPARTMENT OF LABOR, BLS "ESTIMATED AVERAGE RETAIL FOOD PRICES - PACIFIC REGION"

COLBY PROCLAIMS WOMAN SUFFRAGE

Signs Certificate of Ratification at His Home Without Women Witnesses.

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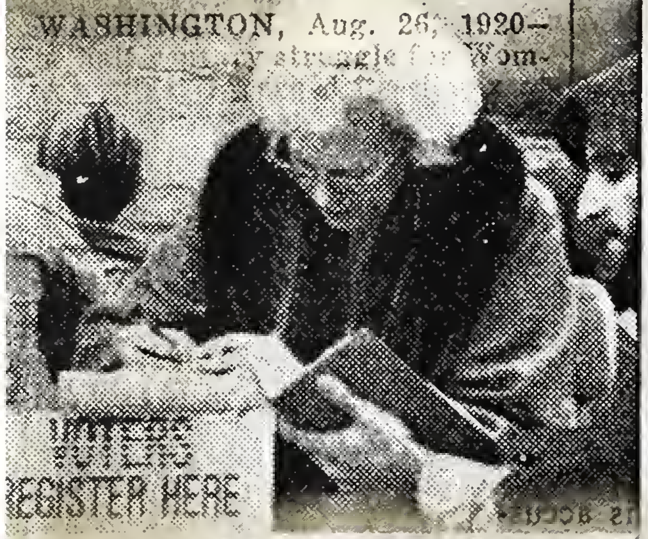
Wanted Movies of Ceremony, But Both Factions Are

WASHINGTON, Aug. 26, 1920—
struggle for Wom-



NEW YORK THURSDAY, AUGUST 15, 1

Social Security Bill Is Signed; Gives Pensions to Aged, Jobl

Roosevelt Approves Message Intended to Benefit 30,00 Persons When States Adopt Cooperating Laws—He C the Measure 'Cornerstone' of His Economic Progra

WASHINGTON, Aug. 14, The Social Security Bill, pr a broad program of unempl insurance and old age pe and counted upon to benef 20,000,000 persons, became day when it was signed by dent Roosevelt in the pres those chiefly responsible f ting it through Congress.

Mr. Roosevelt called the n "the cornerstone in a st which is being but is means comple

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SENATE APPROVES 18-YEAR OLD VOTE IN ALL ELECTIONS

Amendment to Constitution is Sent to House, Where Passage is Expected

WASHINGTON, March 10, 1971—The Senate approved today, 94 to 0, and sent to

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TRUMAN CLOSES TED NATIONS CONFEREN ITH PLEA TO TRANSLATE CHARTER INTO DEEDS

NEW WORLD HOPE

President Hails 'Great Instrument of Peace,' Insists It Be Used

HISTORIC LANDMARK

Meeting Gives Standing Ovation as Executive Pictures Peace Gain

"If we fail to use it," he declared to the solemn final meeting of the delegates, 'we shall betray all of those who have died in order that we might meet here in freedom and safety to create it.'

"If we seek to use it selfishly—for the advantage of any one nation or any small group of nations—we shall be equally guilty of that betrayal."

Fervent Interpolation

The President, speaking in the auditorium of the War Memorial Opera House, built in memory of sons of the Golden Gate city who gave their lives in the first World War, in which he himself served, seemed to give unconscious expression to the solemn feeling of the occasion when, at the outset of his speech, he interpolated the words, half a hope, half a prayer:

"Oh, what a great day this can be in history!"

Just before the plenary session

UL

SIGN

co

the Draf Ends No

WASHINGTON, Jan. 27, 1973—"With the signing of the peace agreement in Paris today, and after receiving a report from the

PATIENT PACKAGE INSERTS: A CONCEPT WHOSE TIME HAS COME?

The consumer's right to know is an irreversible and desirable trend of the Seventies. It extends, and properly, to a patient's right to know more about his or her prescription medications. One way, gaining favor, is through patient package inserts. Wisely-prepared and properly distributed when medically indicated, they could markedly improve patient knowledge and drug therapy—laudable goals by anyone's standards.

The PMA endorses these goals and will work with government, the health professions and consumers to achieve them.

The Advantages

The concept holds promise of benefits: better patient understanding of the product prescribed, better adherence to the treatment plan, and more awareness of possible side reactions.

Every doctor has had patients who fail to finish antibiotic regimens because they feel better. Some patients assume that if one tranquilizer or analgesic is good, two may be twice as good. Still others fail to report dizziness while on antihypertensive therapy—and so on.

Problems like these might arise less often if the patient received written information in addition to verbal instructions. Some studies suggest that patients are more receptive to such materials, and they more often understand the verbal instructions and follow them, when inserts are used.

The Disadvantages

There are also some potential problems. Obviously, the inserts must be clearly phrased, without extraneous or complex detail. How much information is enough? How can it be kept current? Should all patients receive the same information? Should inserts be included with all drugs? Should only potential problems be listed or are patients better off with a "fair balance" presentation that describes usefulness as well as drawbacks?

These and similar questions require answers, since model inserts have yet to be properly developed and tested. Despite the need for these studies, the FDA is proceeding prematurely with inserts on selected products. We think the Congress is the only place where the matter can be given the proper legal status and direction, particularly since it represents a conceptual change in the legal, medical and social framework of the nation's prescription drug information system.

The Solution

The PMA believes that carefully-devised pilot studies of various kinds of inserts are needed. They should be developed and implemented with full participation by doctors, pharmacists, consumers, communications experts and the drug industry. Such studies will provide reliable pathways to follow, so that inserts will be useful aids to medical practice.

And particularly we think that you should be closely involved in this debate and in these studies and decisions. Otherwise, people with less experience and qualifications may control the purposes, content and use of a tool with considerable promise for improved patient care. It could make a difference in your practice tomorrow, and more importantly, in the health of your patients.

PMA
THE PHARMACEUTICAL MANUFACTURERS ASSOCIATION
1155 FIFTEENTH ST., N W., WASHINGTON, D. C 20005

COMMISSIONER'S PAGE

. . . the dramatic rise in health care costs . . . the concept of public "need" . . . the involvement of health care consumers . . . these new elements in the national health care equation have a direct impact on Alaska's health delivery system. Alaska's Certificate of Need Program has developed in response to these elements. The program, which became effective on July 1, 1977, is of interest to providers, planners and the public.

Francis S. L. Williamson

State governments have long been assigned the responsibility of protecting the health and safety of the people. Traditionally, this responsibility has in part been reflected in a state's authority to regulate health facilities via the licensing function and thus to assure that health facilities meet established minimum standards for cleanliness and structural and fire safety. However, licensure standards rarely address the quality of professional services or the price tag attached to those services.

The dramatic rise in health care costs during the past decade and a half has prompted public policy makers to scrutinize the existing health care system in an attempt to control the spiraling costs of health care before large numbers of Americans are priced out of the system completely. Such scrutiny has revealed that a major factor in escalating health care costs is the uncontrolled building of health facilities and the acquisition of sophisticated, but expensive, technological innovations with which to equip those facilities. Government dollars, via the Medicare and Medicaid programs, added to continually increasing private health insurance dollars, provide a significant financial incentive for health facility construction.

In an effort to promote the public welfare the concept of considering the public "need" for facilities and programs was introduced into the health care equation. In 1964, after an exhaustive study by a joint legislative committee, the New York State Legislature passed the Metcalf-McCloskey Act establishing a state certification of need program requiring that public need be demonstrated before new health facilities are constructed or before existing ones are expanded. Near the end of the decade several other states followed New York's lead.

The federal government first formalized its involvement with the needs concept in 1972 with the passage of PL 92-603, establishing in law what has come to be known as the "Section 1122 Program." Admittedly narrow in scope, the Section 1122 Program applies only to capital expenditures and relates to the potential exclusion of interest and depreciation reimbursements from the Medicare and Medicaid programs if public need cannot be demonstrated. Alaska contracted with the Department of Health, Education and Welfare to implement the Section 1122 Program in 1974, as one means of helping to assure the orderly development of health care in the state. Despite the narrow application of the Section 1122 Program, Alaska has profited administratively from its introduction into health care facility control. The Department of Health and Social Services, as the Designated Planning Agency (DPA) for the program has expended much effort to establish a viable and equitable program, and by delegating this responsibility to the Office of Planning and Research has shown that the planning and regulatory functions can co-exist compatibly. In addition, the implementation of the Section 1122 Program has heightened the department's awareness of the importance of accumulating adequate statistical data, of providing uniform standards and time sequences to assure a thorough review of proposals, of the necessity for maintaining competent staff, and of the need for appropriate provider-consumer training. Because of its involvement in the Section 1122 Program, the Department of Health and Social Services is infinitely better prepared to handle the responsibilities of regulatory programs such as Certificate of Need.

The National Health Planning and Resources Development Act was enacted in late 1974. This federal statute (PL 93-641) carries even greater import for Alaska's health planning and regulatory processes and for the development of health resources within the state. Under the terms of the law, states are instructed to establish definitive planning areas within which consumer-oriented bodies organized solely for planning purposes perform detailed functions. A consumer-oriented statewide council and a specific state administering agency must also be designated. To make the planning operational, the Act requires that participating states have enforcement capabilities evidenced by a Certificate of Need program. Such a program must make findings regarding the need for all proposed new institutional health facilities and services through a review procedure utilizing both the regional planning bodies and the state agency. Failure to meet these requirements would jeopardize all federal funding to a state authorized under the Public Health Services Act, the Community Mental Health Centers Act, and the Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970. With the major exception of Medicaid, these acts authorize almost all federal health funding to state and local governments across the nation.

Recognizing the financial pressure to adhere to the requirements of the National Health Planning Act and realizing that the Section 1122 Program alone cannot guarantee substantial conformance, the Department of Health and Social Services supported a bill on Certificate of Need introduced in the Ninth Legislature by the Legislative Council's Interim Committee on Health Planning. Because Alaska is currently not beset with the proliferation of health care facilities occurring in more populous areas, and because of the many unknowns inherent in the comprehensive new federal law, the department urged that Alaska adopt a modest Certificate of Need program, confining the regulatory scope of the process to those medical care facilities and services mandated by PL 93-641 and the federal regulations accompanying it. The department stressed that there existed a need for a positive certification process that could promote consumer involvement in the design of a health care system and that could help the State of Alaska to avoid many of the problems of duplication and overbuilding of health facilities that confront many of our neighbors in the lower 48.

In response to the federal mandate and to the department's support of a cautious entrance into the health care facility regulation arena, the Alaska Legislature enacted Chapter 275, giving a new duty to the Department of Health and Social Services and its implementing agency, the Office of Planning and Research. Chapter 275 establishes the Statewide Health Coordinating Council and recognizes and provides supplemental funding for Alaska's three regional health planning agencies. The law also creates a state Certificate of Need program under terms specified by the federal law (PL 93-641). The passage of Chapter 275 clearly demonstrates the intent of the Alaska Legislature to support a regional, consumer-based health planning system and to give that system some "teeth" via the Certificate of Need regulatory process. While the establishment of the Statewide Council, the regional planning bodies and the state agency were given an immediate effective date, the implementation date for the Certificate of Need program was delayed until July, 1977.

Under Alaska's Certificate of Need program a health care facility is defined as a general or special purpose hospital, a long-term care facility, a kidney disease treatment center, or an ambulatory surgical facility. The statute excludes outpatient clinics and physicians' offices. Proposals for establishment of eligible facilities must obtain certification for any construction, alteration of bed capacity, or addition or elimination of a major category of health services.

For the past six months, the Department of Health and Social Services has been working with regional health planning agency staffs and board members, health care providers throughout the state, and the consuming public to establish a set of regulations to implement the Certificate of Need statute. Care has been taken to balance the provisions of the state law and federal regulations with the unique features of the Alaska health care system in an effort to create a meaningful and effective Certificate of Need procedure.

The time to test what has been created is now fast approaching. There is no doubt that the impact of the certification program can be substantial. As a mutual endeavor of both planning and regulatory disciplines, the program will impact directly on the future location, type and quantity of health care facilities thus indirectly affecting the quality of health care services provided every Alaskan citizen. Indeed, the "quality of care" question will doubtless present the thorniest problem for the administrators of the Certificate of Need program. Some participants, more attuned to containing costs, will be dissatisfied if projects with high price tags are approved. Others, envisioning the increased ability to provide important medical care through new or expanded facilities will advocate approval of every proposal. It is obvious that a delicate balance must be struck; it is also obvious that the very fact that we are engaged in a regulatory activity will condemn us in the eyes of some. The department's commitment to assist in a national program of cost containment while simultaneously promoting quality health care is reflected in the Mission Statement guiding every activity we perform: "To improve the physical, emotional and social well-being and the economic independence of Alaskans through the efficient utilization of available resources."

The Department of Health and Social Services will work strenuously to achieve a Certificate of Need program which accounts for planning priorities based on consumer needs, which assists in reducing the high costs of medical care, and which contributes to correcting the serious maldistribution of medical services in Alaska. The administration of the program will be dedicated to maintaining credibility with all participants in the health care system—providers, planners and the public—so that all may benefit. We anticipate that with cooperation the Certificate of Need program will enhance the state's ability to protect the health and safety of every Alaskan citizen.

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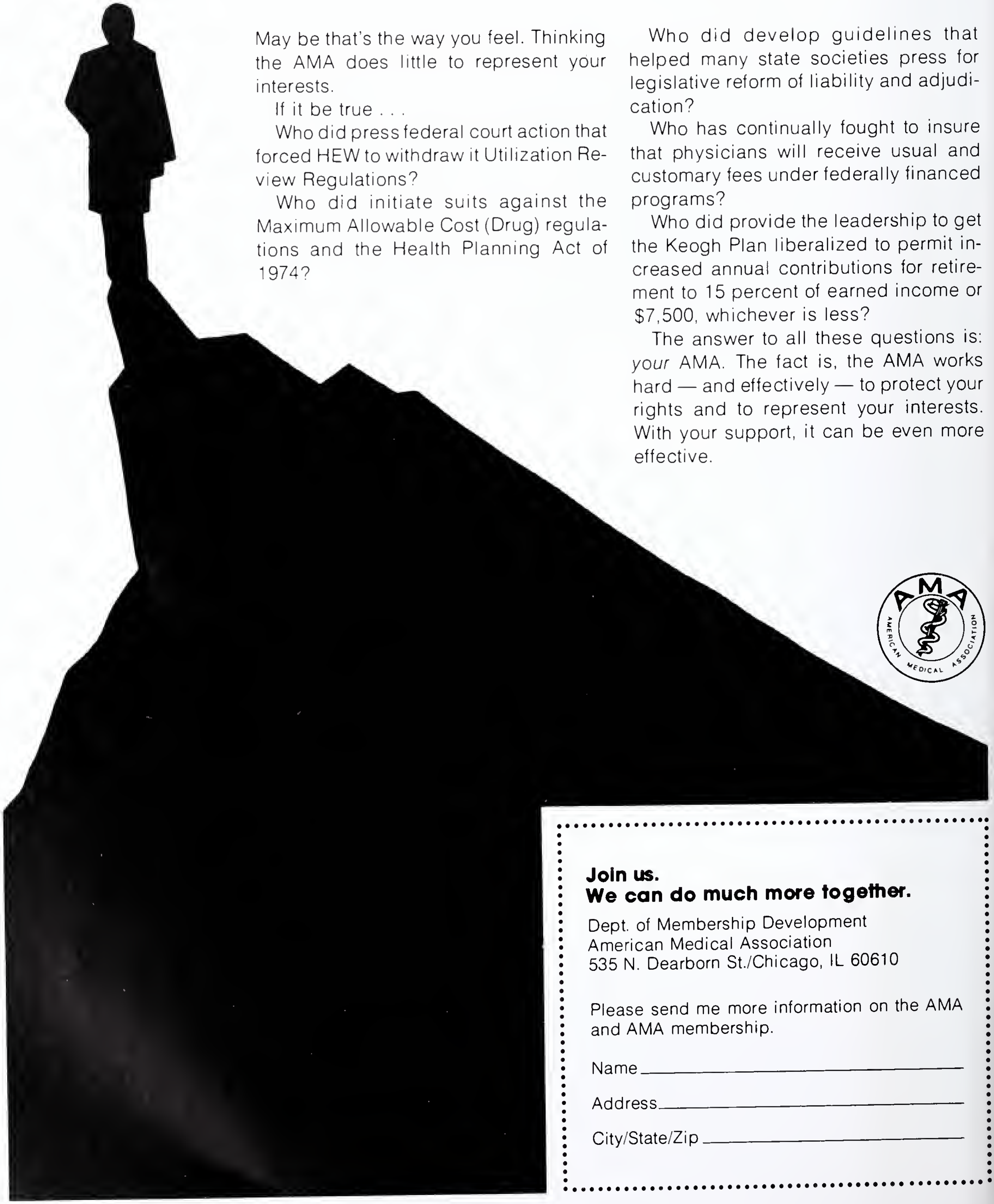

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PRESIDENT'S PAGE

David Beal, M.D.

The office of the President allows a wide perspective of current state and national events pertaining to medicine; however, it is the unseen small details that frequently determine the outcome of some of these events. These details are brought into focus by individual members. It is hoped that individual members will give this office guidance by voicing their knowledge of the details. Up until this time there has been very little input from our outlying areas. However, I know I will hear from these areas as the crises occur.

From the perspective of this office, I envision the following as major issues facing us in the near future:

> **MICA.** MICA has continued to increase its expenditures. MICA recently hired the Marsh and McClennan insurance firm to manage the program at a cost not to exceed $160,000 per year or approximately $1,000 per policy. It also has established the rule one. One individual may settle claims, b the whole board must be present if the clai is to be defended. There has also been a rather large turnover in board members in the MICA organization, with only two of the original members now in attendance. These three problems alone lead me to seriously question the stability and ultimate survival of this new program.
>
> **Tort law change.** The Governor has begun to activate the "Blue Ribbon Commission" to study tort law change in the fields of auto, medical, product, and government liability where bodily injury is concerned. He has requested members in the medical profession to sit on this august Commission, and I have nominated two physicians who are interested and informed on this subject. If others are significantly interested in putting the time in on the boards of this nature, I would appreciate their volunteering. I believe this Commission could ultimately conclude with tort law change recommendations such as are in existence in 35 other states. This could give us a set discovery period to go with our two year statute of limitations, a limitation on limit awards, dismissal awards for pain and suffering, and could alter the lawyers method of renumeration. At that point the efforts of individuals within the medical society will be necessary to insure that the recommendations are enacted into law.
>
> **Mandatory insurance:** The present law needs to be changed. The courts appear to want the Legislature to reconsider; however the Legislature first wants the court decision rendered. The Administration has turned 180 degrees from its initial position and is strongly supporting the repeal bill. This reversal of attitude has been generated by the difficulty they have had in enforcing the 1976 mandatory insurance bill and by the serious questions about the programs funding.
>
> **Voluntary insurance.** It would appear that voluntary insurance will be possible only through the state mechanism as described in the repeal legislation. There would be a mechanism whereby the physicians would gain control of the company, establish a base, clean up the administration, and set firmer policies.
>
> **Medical defense funds.** A primary concern among a great number of physicians is the developement of a Doctor's Protective Association or medical defense fund. The experience thus far regarding funds which do only defense work comes from the state of Hawaii. The fund in Hawaii is a fund in which a physician who is a member in good standing in the state medical society can join this Doctors Protective Association for a fee of $600 per year. This then guarantees him defense arising out of claims made against

the doctor. It pays no awards, however. The Hawaii plan has been in effect one year in which it successfully defended at the cost of $2,300. At this time 20% of all physicians in Hawaii, or some 350, are members of this defense fund. A combination of voluntary insurance and medical defense fund could be patterned after the British Medical Defense Union. In this plan, a member pays a one-time fee (between $10,000 and $20,000 if California is used as an example state). This is refunded at retirement, or leaving practice for any other reason. The fees are generated to administer the system, carry out defense in all cases that are defendable, and initially, pay up to $100,000 in awards. This type of fund, although more expensive may be more appealing to many practitioners.

As you can see there are many things that we should be seriously considering. As we approach the legislative session, we are going to have to generate positions on these questions, and I hope we will have a clear concensus as to our position.

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Books Received

Handbook of Obstetrics and Gynecology. Lange Medical Publications, 1977. $9.50.

Review of Physiological Chemistry. Lange Medical Publications, 1977. $13.

General Ophthalmology. Lange Medical Publications, 1977. $12.

Current Surgical Diagnosis and Treatment. Lange Medical Publications, 1977. $18.

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FALL COUNCIL MEETING
Mount McKinley Village Hotel
September 17, 1977

Councilors representing Ketchikan, Kenai Peninsula, Anchorage, and Fairbanks, Committee Chairmen, and the officers of the Alaska State Medical Association met on September 17 at a private hotel near McKinley Park entrance on a day of crowning autumnal splendor.

While accompanying wives and children sported en-plein-air the Council deliberated for four and one-half hours under the Chairmanship of President David Beal in an airless and poorly lit inner conference room to decide the course of the Association during the next several months.

Foremost under consideration was what to do about the unresolved medical malpractice matter. Since legislation repealing the requirement that all physicians buy insurance from the Medical Indemnity Corporation of Alaska passed only the Senate this year, it was determined to re-double efforts to push this or amended or substituted legislation through the House in the upcoming second session of the Tenth State Legislature. To this end a motion was passed to make the Council an ad hoc committee-of-the-whole to decide what to do.

Alternative courses discussed were to support the bill in the House as it stands, to add certain tort reforms to it such as strict two-year statute of limitations and limitation on awards as in the successful Indiana law, or return to one of our pre-Governor's Medical Malpractice Insurance Commission bills. These matters of strategy and tactics will be designed by the ad hoc committee. It will meet next on October 22 in Anchorage.

It will help our efforts to undo mandatory malpractice insurance if alternative systems for protection of patients and the physician can be developed. A proposal to investigate the feasibility of applying the Stedman System of Risk Control for clinics to individual practices or small partnerships was discussed and will be pursued. The Stedman system is an intergral part of the American Group Practice Association insurance program and is currently operational in clinics in Alaska.

The Council is also exploring the possibilty of creating a Physicians' Protective Association. This would be a pre-paid legal service fund for handling claims brought against members of the protective association. An accompaning trust fund might also be established to pay lost claims. Such protective associations have been organized in Hawaii and Southern California but experience with them is short. A physicians' protective association, if established, would be an independent organization -- not a part of the ASMA.

Aside from these weighty matters the Council talked about national health insurance without taking action; decried the wasteful expansion of the U.S.P.H.S. at Mt. Edgecumbe and possibly soon at Anchorage and the expensive, unnecessary transfer of native beneficiaries from Ketchikan and Juneau to Mt. Edgecumbe and from Fairbanks to Tanana, considered with impotent anguish the expanding frontiers of chiropractic, naturopathic, and laetrile pushers, and discussed financial matters including the likehood that dues will have to be increased in 1978 to cover the cost of a lobbyist in June. Dues have be $250 since 1973.

ALASKA MEDICINE sorely needs articles for publication. Editor Kottra is considering reduction from six to four issues annually, but the Council wants to continue six. Councilors will exhort members to write about their experiences for publication in our journal.

At the end of the day, children and wives came inside. After children were fed, grown-ups dined on roast lamb.

We drove or flew home in the rain on the next day.

The Winter Council meeting will be January 7 (Saturday) in Anchorage. The Annual Meeting will be March 10-12, 1978 (Friday-Sunday) at Alyeska.

Rodman Wilson, M.D.
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Warnings: Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for infants less than two months of age.

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Recommended dosage for children—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. A guide follows:

Children two months of age or older

Weight		Dose—every 12 hours	
lbs	kgs	Teaspoonfuls	Tablets
20	9	1 teasp. (5 ml)	½ tablet
40	18	2 teasp. (10 ml)	1 tablet
60	27	3 teasp. (15 ml)	1½ tablets
80	36	4 teasp. (20 ml)	2 tablets or 1 DS tablet

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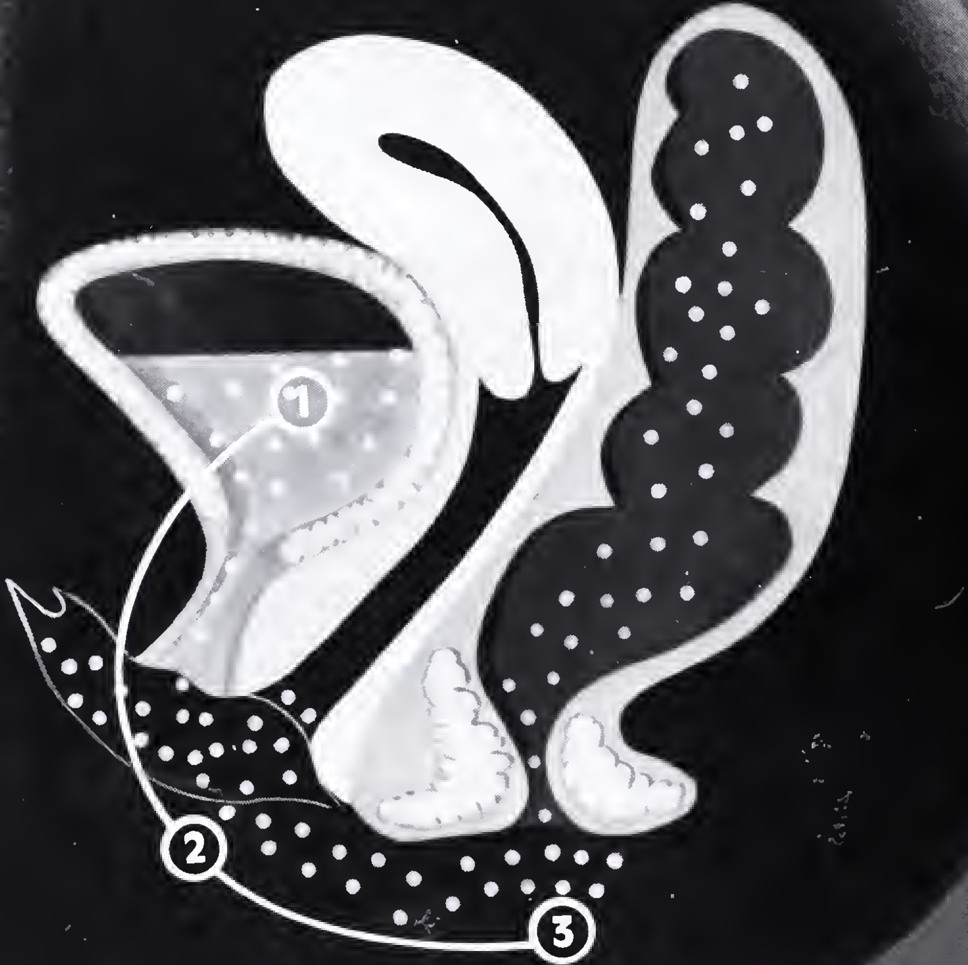

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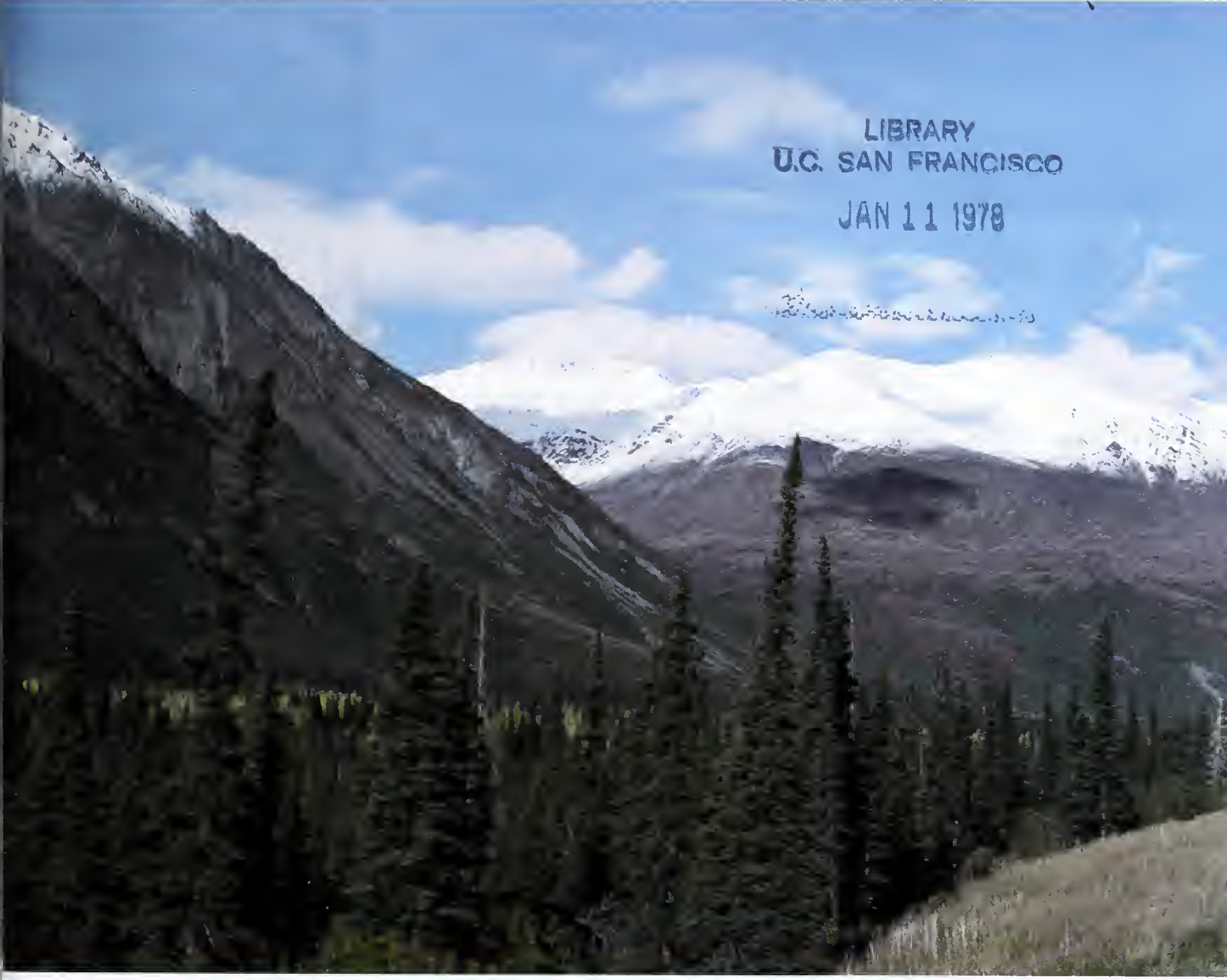

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Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

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***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

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ALASKA MEDICINE

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by J. Kottra, M.D.

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TENSION HEADACHE AND THE MPD SYNDROME

Robert Brodie, DDS

A significant number of patients are finding permanent relief from chronic tension headache by accurate diagnosis and accurate correction of dental abnormalities which unbalance the musculature of the swallowing — chewing mechanism.

The MPD syndrome (myofacial pain dystrophy) is described in the literature by many names and is probably diagnosed differently in many offices. For the purposes of the paper let us describe it as an abnormality of the swallowing — chewing mechanism.

Swallowing occurs more often during a day than chewing and being largely an involuntary reflex, it is probably of more significance than chewing except for the large magnitude of forces which are applied to the anatomical structures while chewing. The swallowing — chewing mechanism extends from the muscle insertions of the shoulders to the fascial inserts at the top of the head.

The problem begins when the mandibular teeth cannot be placed comfortably against the maxillary teeth while the temporomandibular joint is in proper position. The extraordinary proprioceptive responses of the teeth then induce a neuromuscular accomodation which shifts the mandible to a more comfortable position. This however induces a degree of trismus in the muscles involved and is aggravated by time, force and other physiologic and psychologic stress on the mechanism. This, in turn, can cause cascading responses of other muscle groups resulting in severe trismus.

Symptoms and signs.

Typically, the patient will complain of tension headache which is most acute in times of emotional stress or fatigue. This may occur as often as once a day or once a year. The severity of pain may be mild enough to respond to a few aspirin or severe enough that nothing seems to help. The pain is most often felt in the back of the neck, the temples, the top of the head or the TMJ. The patient may exhibit restricted jaw movements when opening or with lateral excursions of the mandible. Frequently such patients grind their teeth when tense. This may occur awake or sleeping. Some have developed this into a lifelong habit, showing considerable, obvious tooth wear. Many give evidence of protective habits to counteract the tooth interferences such as cheek biting, lip chewing or tongue thrust. The patient may complain of pain or discomfort in the TMJ area associated with hearing loss, tinnitus, crepitus, clicking or popping of the joint during function.

Examination of the patient shows definite tenderness of specific muscle groups. More often unilateral, but occasionally bilateral muscle groups are affected, particularly the cervical muscles and the lateral pterygoids, followed in incidence by the temporal groups and the masseter. Palpation of the TMJ laterally and posteriorly through the auditory canal will disclose popping, clicking, crepitus during opening or lateral excursions of the mandible.

Opening may be restricted or go to the other extreme, showing hypermobility. Severe wear can be evidenced on individual teeth or throughout the mouth as in severe habitual bruxism, resulting in all the teeth being ground short. Individual teeth may be sensitive to percussion, heat, cold or sugar solutions. A peculiar erosion of tooth structure occurs at the gumline.

Radiographic examination shows widening of the periodontal membrane and vertical bone loss of involved teeth.

Etiology.

The MPD syndrome can develop slowly with

8301 Old Seward Highway
Anchorage, Alaska

the development of the facial skeleton and dentition. It can be the result of neglect of deciduous teeth from caries or collapse of arch length through tooth loss. There can be genetic disproportion between the mandible and the maxilla or between tooth size and skeletal size. The loss of any tooth and the subsequent tilting of teeth posterior to the space is quite common. Iatrogenic causes are seen in prostheses and fillings which fail to balance the musculature and allow for excursive movements. Trauma can play a role such as whiplash and facial fractures. Many other causes have been listed in the literature.

Treatment.

A differential diagnosis should include rheumatoid arthritis, infective arthritis, odontalgia sinustiis and myalgia, neuralgias, Meniere's disease, temporal arteritis, and other collagen diseases; neoplasms, rheumatic fever, rheumatism, angina pectoris, otitis, osteoarthritis and migraine.

Once the above have been ruled out treatment consists in the elimination of the occlusal and temporomandibular joint disharmony, lowering of psychic tension, and elimination of other causes of pain and discomfort in the oral region.

Occlusal biteplanes and splints are effective in many applications during periods of acute symptoms for rapid relief. Occlusal reconstructions are necessary for patients with missing, rotated or tipped teeth. Muscle relaxing exercises, periodontal therapy, drug therapy, heat, psychotherapy referral of surgical therapy, in extreme cases, may also be considered.

If diagnosed early, accurate and carefully executed occlusal equilibration can eliminate the most serious problems before non-reversible changes occur in the joint itself.

Cases studies.

I. History: A 22 yr. old female presented herself for routine examination with a complete set of natural teeth. It was learned that she was experiencing headaches as often as twice a month "for as many years as she could remember," referred to the back of the neck and to the top of the head. The patient had an orthodontic correction in her adolescent years. There was an anterior open bite and a tongue thrust noted.

Treatment: An occlusal equilibration was done which brought the anterior teeth into occlusion and eliminated interferences in swallowing and chewing function.

Sequelae: One year afterwards this patient reported that she had not experienced any episodes of headache. Interestingly enough there was no evidence of the return of the tongue thrust indicating that it was a defense mechanism to protect the teeth by cushioning.

II. History: Routine examination showed a female, age 35, who had daily "semi-permanent" headaches of years duration. Prematurities were noted on the left side. On manipulating the mandible, popping was loud enough to be heard across the room as the patient went into function; also, three jaw positions were noted, indicating that the meniscus was in function considerably in front of its normal position in the temporal fossa.

Treatment: This case required the replacement of teeth and repositioning of the mandibular condyle approximately 8mm. posteriorly of habitual function. Headaches disappeared during the time that the patient was under treatment. The popping TMJ disappeared gradually and six months later the patient reported no recurrance of either symptom.

III. History: A 42 yr. old female during a routine examination stated that she had headaches for years which also involved the shoulders and the back of the neck. This patient was noted to be very nervous, particularly when any procedures were attempted about the mouth. She had consulted with both her family physician and an ENT consultant regarding her headaches but nothing abnormal was noted.

Treatment: An equilibration procedure was accomplished in stages, eliminating some severe interferences in functional excursions of the mandible. The patient reported that the headaches disappeared almost immediately afterwards. She appeared to be a more relaxed and happy person eight months later.

IV. During a routine exam a 33 yr. old female stated that she had severe headaches every two weeks, from the neck muscles to the occipital region. Loud popping was noted on awakening, suggesting night bruxism. Many prematurities were noted in excursions.

Treatment: Missing teeth were restored with prostheses. The bite was corrected to allow free functional movements in harmony with the TMJ's. The patient was astonished when the headaches disappeared immediately after bite correction. At a 6 month followup there had been no recurrance of headache, the patient was chewing comfortably and the popping noise was greatly diminished.

Conclusions.

Many patients can find relief of headache by the early diagnosis and correction of tooth interferences and the replacement of permanent teeth. With the increased understanding of the proprioceptive function of the teeth, saving them becomes all the more important. Hence preventive programs designed to avoid and eliminate diseases of the mouth are most significant.

In the case of the MPD syndrome headache is the most significant complaint. Persistent and careful questioning is necessary to determine the intensity, frequency and the anatomical reference points. Some patients have been found to think that daily severe headaches are a normal state of affairs, probably due to the barrage of TV advertisements. At present it seems as though women are more affected than men; however as women are more likely to take care of their mouths, it may be that there isn't sufficient sampling to accurately assess this. Headaches of this type are probably as widespread as dental neglect. The phenomenon is still new to dentistry and few of us are accustomed to think of headaches in terms of dental etiology. Since the patient is much more likely to consult a physician for a headache the above information should enable many more patients to achieve lasting cures for headaches rather than "temporary relief."

In acknowledgement of many of the ideas which have brought me to the above conclusions I must thank Niles Guichet, John Nasedkin, Bill Comcowich and the members of the Seminar for Occlusal Studies. Additional References are:

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Social Security Bill Is Signed; Gives Pensions to Aged, Jobl

Roosevelt Approves Message Intended to Benefit 30,000
Persons When States Adopt Cooperating Laws—He Ca
the Measure 'Cornerstone' of His Economic Program

WASHINGTON, Aug. 14,
The Social Security Bill, pro
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Mr. Roosevelt called the m
"the cornerstone in a str
which is being built but is
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COM

SENATE APPROVES 18-YEAR OLD VOTE IN ALL ELECTIONS

Amendment to Constitution is Sent to House, Where Passage is Expected

WASHINGTON, March 10, 1971—The Senate approved today, 94 to 0, and sent to

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ITH PLEA TO TRANSLATE
CHARTER INTO DEEDS

NEW WORLD HOPE

President Hails 'Great Instrument of Peace,' Insists It Be Used

HISTORIC LANDMARK

Meeting Gives Standing Ovation as Executive Pictures Peace Gain

"If we fail to use it," he declared to the solemn final meeting of the delegates, 'we shall betray all of those who have died in order that we might meet here in freedom and safety to create it.'

"If we seek to use it selfishly—for the advantage of any one nation or any small group of nations—we shall be equally guilty of that betrayal."

Fervent Interpolation

The President, speaking in the auditorium of the War Memorial Opera House, built in memory of sons of the Golden Gate city who gave their lives in the first World War, in which he himself served, seemed to give unconscious expression to the solemn feeling of the occasion when, at the outset of his speech, he interpolated the words, half a hope, half a prayer:

"Oh, what a great day this can be in history!"

Just before the plenary session

UL SIGNE the Draf Ends No

WASHINGTON, Jan. 27, 1973—"With the signing of the peace agreement in Paris today, and after receiving a report from the

PATIENT PACKAGE INSERTS: A CONCEPT WHOSE TIME HAS COME?

The consumer's right to know is an irreversible and desirable trend of the Seventies. It extends, and properly, to a patient's right to know more about his or her prescription medications. One way, gaining favor, is through patient package inserts. Wisely-prepared and properly distributed when medically indicated, they could markedly improve patient knowledge and drug therapy—laudable goals by anyone's standards.

The PMA endorses these goals and will work with government, the health professions and consumers to achieve them.

The Advantages

The concept holds promise of benefits: better patient understanding of the product prescribed, better adherence to the treatment plan, and more awareness of possible side reactions.

Every doctor has had patients who fail to finish antibiotic regimens because they feel better. Some patients assume that if one tranquilizer or analgesic is good, two may be twice as good. Still others fail to report dizziness while on antihypertensive therapy —and so on.

Problems like these might arise less often if the patient received written information in addition to verbal instructions. Some studies suggest that patients are more receptive to such materials, and they more often understand the verbal instructions and follow them, when inserts are used.

The Disadvantages

There are also some potential problems. Obviously, the inserts must be clearly phrased, without extraneous or complex detail. How much information is enough? How can it be kept current? Should all patients receive the same information? Should inserts be included with all drugs? Should only potential problems be listed or are patients better off with a "fair balance" presentation that describes usefulness as well as drawbacks?

These and similar questions require answers, since model inserts have yet to be properly developed and tested. Despite the need for these studies, the FDA is proceeding prematurely with inserts on selected products. We think the Congress is the only place where the matter can be given the proper legal status and direction, particularly since it represents a conceptual change in the legal, medical and social framework of the nation's prescription drug information system.

The Solution

The PMA believes that carefully-devised pilot studies of various kinds of inserts are needed. They should be developed and implemented with full participation by doctors, pharmacists, consumers, communications experts and the drug industry. Such studies will provide reliable pathways to follow, so that inserts will be useful aids to medical practice.

And particularly we think that you should be closely involved in this debate and in these studies and decisions. Otherwise, people with less experience and qualifications may control the purposes, content and use of a tool with considerable promise for improved patient care. It could make a difference in your practice tomorrow, and more importantly, in the health of your patients.

PMA
THE PHARMACEUTICAL MANUFACTURERS ASSOCIATION
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REFLECTIONS ON THE PAST
The Developement of Eskimo Health Care

C. Earl Albrecht, M.D.*

During my active professional life I have been privileged to see the dramatic change that has taken place in the Health Care of the Eskimo of Alaska. I will outline briefly some of the highlights in which I participated. Some background seems appropriate, from the very earliest times of American ownership of Alaska to the present. The source of my material chiefly comes from the writings of Dr. Robert Fortuine, Director of the Alaska Native Medical Center in Anchorage, an excellant medical historian, and from my own knowledge and experience.

When the United States purchased Alaska from Russia in 1867 for $7,200,000, there was very little health service, although the Russians had small hospitals at their capitol, Sitka, and a trading center at Kodiak. These services did not reach the Eskimo natives, for they lived in the interior and in remote coastal villages. The only health services available were from the Shamans and Health Healers. Their Chief functions were to dispell evil spirits — which they felt were the cause of disease, accidents and death. They rarely prescribed potions but capitalized on fear and superstition, even human sacrifice. These primitive services continued after the United States obtained control over all of Alaska. In fact, health services went from bad to worse after the hospitals in Sitka and Kodiak were closed. Interestingly enough, one of the stipulations of the treaty with Russia was that the U.S. would provide for the native people of Alaska in the same manner as it did for the Indians elsewhere in the country. But complying with the stipulation was delayed by our government. Governor after governor urged Congress to do something: Governor A. P. Swineford reported: "A hospital is absolutely indispensable if it be the desire of the government to arrest the progress of diseases among the nations which threaten their complete extinction."

It is difficult for us to comprehend the extremely seriousness of disease among the Eskimo. The traders and trappers of the outside world brought devastating epidemics of infectious desease, notably smallpox, influenza and measles. Between 1836 and 1840 smallpox was epidemic in many parts of Alaska and the mortality was very high. But the most tragic disease was influenza. In 1900-19, the Spanish influenza became epidemic throughout Alaska, literally killing everyone in some villages. No one lived to bury the dead, and not until weeks later mortality was extremely high from infectious diseases and poor sanitation. In 1935, when I began my professional life in Alaska, the acute infections diseases still took their toll, but tuberculosis had become a devastating scourge. It became the number one health problem which needed to be overcome.

Dr. Sheldon Jackson, a Presbyterian clergyman, the General Agent for Education in Alaska, recognized the need for better health services and urged the federal government as well as church denominations to send missionaries and health personnel to minister to the natives. Several denominations responded, including Episcopalians, Methodists, Moravians, Presbyterians and Roman Catholics. All of these churches still continue their work in Alaska. Soon, medical missionaries arrived. In 1896 a Philadelphia physician, Dr. John Herman Romig, went to Bethel from where he served a large area in southwest Alaska for seven years. He traveled by dog team, covering hundreds of miles to serve people along the Yukon River. In 1907, our federal government finally accepted its responsibility, and through the Bureau of Education in the Department of Interior, funds were made available for health purposes. Medical personnel were assigned to transportation centers and a few small hospitals were constructed. By 1931, with a total appropriation of $168,000, 61 persons were employed for seven hospitals, a health

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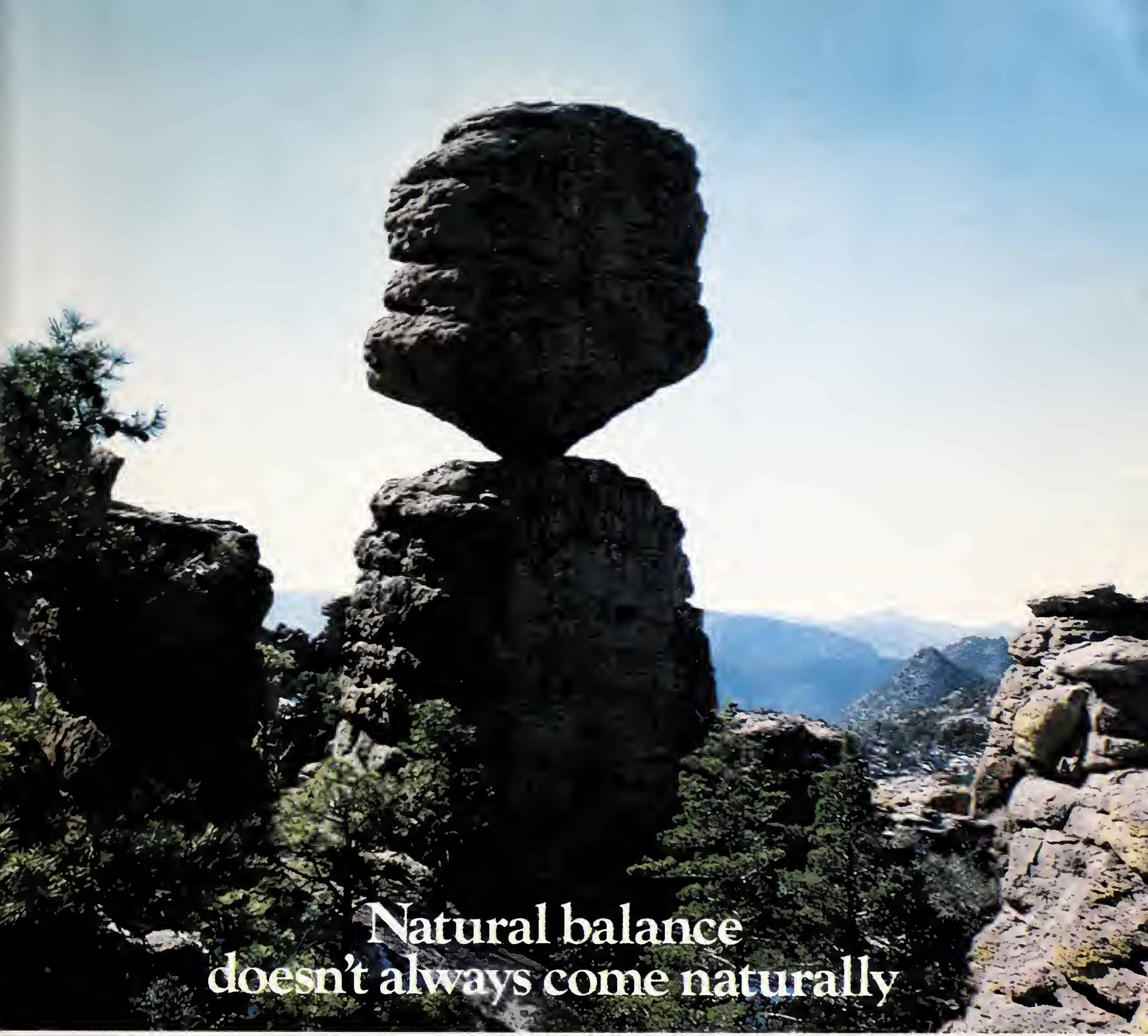
* Presented at Jefferson Medical College, Philadelphia, June 8, 1977, at Alumni Reunion Day for the Class of 1932 — 45th Reunion.



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- **Dosage for Vertigo***—The usual adult dosage for Antivert/25 is one tablet t.i.d.

BRIEF SUMMARY OF PRESCRIBING INFORMATION

*INDICATIONS. Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

Effective: Management of nausea and vomiting and dizziness associated with motion sickness.

Possibly Effective: Management of vertigo associated with diseases affecting the vestibular system.

Final classification of the less than effective indications requires further investigation.

CONTRAINDICATIONS. Administration of Antivert (meclizine HCl) during pregnancy or to women who may become pregnant is contraindicated in view of the teratogenic effect of the drug in rats.

The administration of meclizine to pregnant rats during the 12-15 day of gestation has produced cleft palate in the offspring. Limited studies using doses of over 100 mg./kg./day in rabbits and 10 mg./kg./day in pigs and monkeys did not show cleft palate. Congeners of meclizine have caused cleft palate in species other than the rat.

Meclizine HCl is contraindicated in individuals who have shown a previous hypersensitivity to it.

WARNINGS. Since drowsiness may, on occasion, occur with use of this drug, patients should be warned of this possibility and cautioned against driving a car or operating dangerous machinery.

Usage in Children: Clinical studies establishing safety and effectiveness in children have not been done; therefore, usage is not recommended in the pediatric age group.

Usage in Pregnancy: See "Contraindications."

ADVERSE REACTIONS. Drowsiness, dry mouth and, on rare occasions, blurred vision have been reported.

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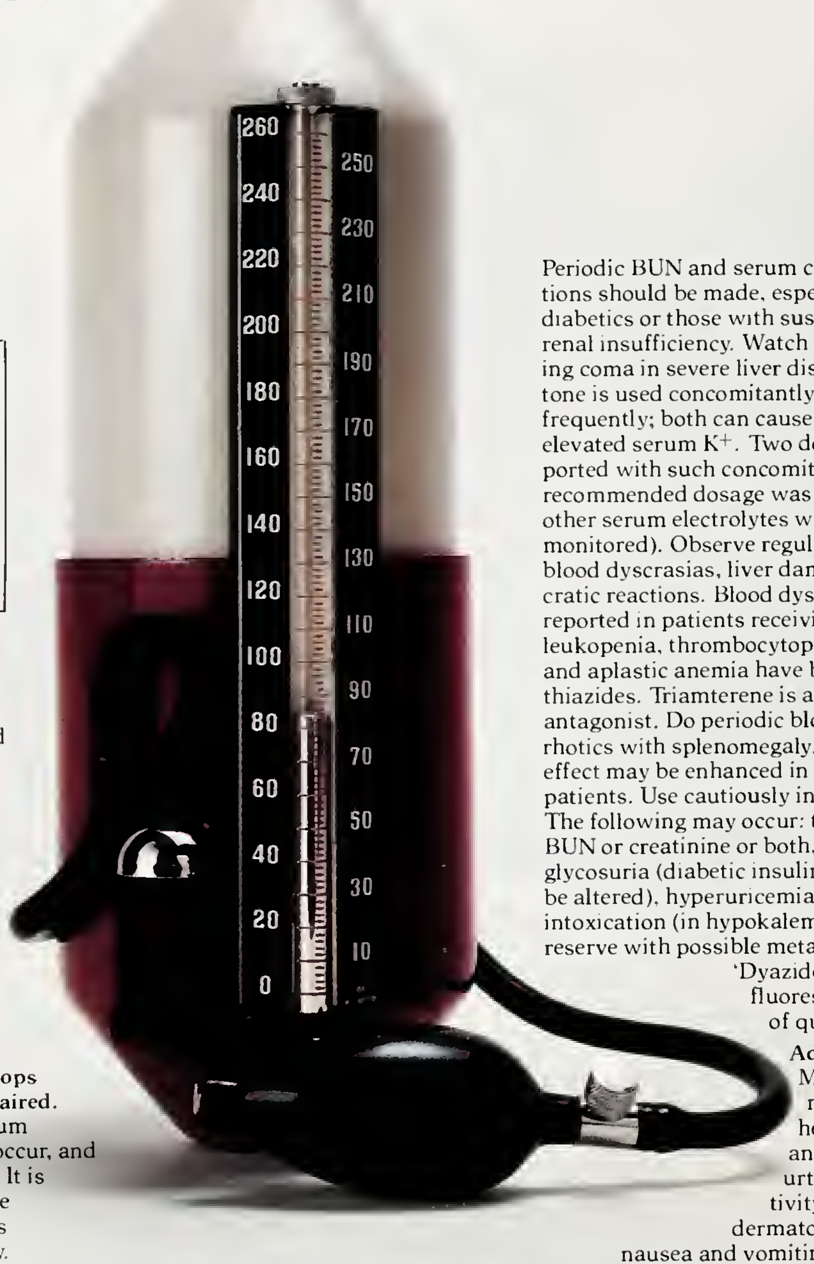

Before prescribing, see complete prescribing information in SK&F Co. literature or PDR. A brief summary follows:

* Warning
This drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual. If this combination represents the dosage so determined, its use may be more convenient in patient management. Treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

* **Indications:** When the combination represents the dosage determined by titration: Adjunctive therapy in edema associated with congestive heart failure, hepatic cirrhosis, the nephrotic syndrome. Corticosteroid and estrogen-induced edema, idiopathic edema; hypertension, when the potassium sparing action of triamterene is warranted. (See Box Warning.) Routine use of diuretics in healthy pregnant women is inappropriate; they are indicated in pregnancy only when edema is due to pathological causes.

Contraindications: Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum K^+ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K^+ intake. **Associated widened QRS complex or arrhythmia requires prompt additional therapy.** Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, thrombocytopenia, other adverse reactions seen in adults. Thiazides appear and triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available.

Precautions: Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spironolactone is used concomitantly, determine serum K^+ frequently; both can cause K^+ retention and elevated serum K^+. Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded, in the other serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with thiazides. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Antihypertensive effect may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis.
'Dyazide' interferes with fluorescent measurement of quinidine.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone.

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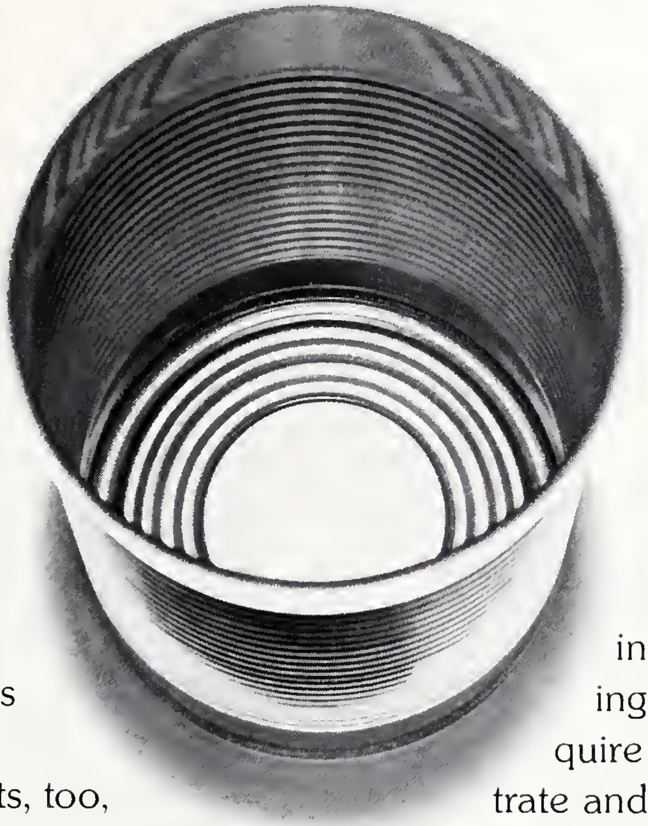

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Usage in ambulatory patients. Caution patients that these products may impair mental and/or physical abilities required for performance of potentially hazardous tasks such as driving a car or operating machinery.

Interaction with other CNS depressants. Patients receiving other narcotic analgesics, general anesthetics, phenothiazines, tranquilizers, sedative-hypnotics, or other CNS depressants (including alcohol) may exhibit additive CNS depression; when used together reduce dose of one or both.

Usage in Pregnancy. Safe use is not established. Should not be used in pregnant patients unless potential benefits outweigh possible hazards.

PRECAUTIONS: Head injury and increased intracranial pressure. Respiratory depressant effects of narcotics and their capacity to elevate cerebrospinal fluid pressure may be markedly exaggerated in the presence of head injury, other intracranial lesions or a pre-existing increase in intracranial pressure. Narcotics produce adverse reactions which may obscure the clinical course of patients with head injuries.

Acute abdominal condition. These products or other narcotics may obscure the diagnosis or clinical course of acute abdominal conditions.

Special risk patients. Administer with caution to certain patients such as elderly or debilitated patients and those with severe impairment of hepatic or renal function, hypothyroidism, Addison's disease, or prostatic hypertrophy or urethral stricture.

ADVERSE REACTIONS: Most frequently include lightheadedness, dizziness, sedation, nausea, and vomiting; more prominent in ambulatory than in nonambulatory patients; some may be alleviated if patient lies down; others include: euphoria, dysphoria, constipation and pruritus.

DRUG INTERACTIONS: CNS depressant effect may be additive with that of other CNS depressants. See Warnings.

For symptoms and treatment of overdosage and full prescribing information, see package insert.

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boat on the Yukon River, and 16 nursing stations. At about this time the entire program was taken over by the Bureau of Indian Affairs. Although this agency was hampered by the economic depression of the late thirties, progress in health care was made by the use of itinerant nurses in the larger native villages. The highly beneficial service of these dedicated women is a rich medical saga too often forgotten. They were isolated in remote locations for long periods of time because of poor transportation and little or no method of communication to other centers. Disease was rampant, particularly the scourge of tuberculosis which was causing a mortality rate second to none in the world. Fairly accurate reporting in some areas demonstrated that the death rate exceeded one thousand per hundred thousand people, as compared to the U.S. rate at that time of 56 per hundred thousand population. Immunizations were performed and acute emergencies were treated, but the tuberculosis epidemic continued.

After World War II, Governor Ernest Gruening, a physician, put forth a major effort to prove health conditions in the territory. He called a special session of the legislature to take strong positive action to curb the scourge of tuberculosis. He reorganized the Department of Health and appointed a full—time Commissioner of Health. I was the appointee serving on the Governor's cabinet for over ten years. An aggressive program to improve health conditions, build new hospitals and stop the epidemic of tuberculosis was put into action. A cooperative program between the U.S. Public Health Service, the Bureau of Indian Affairs and the territorial government was an important factor in the success achieved. Every conceivable method was adopted to reach the native people so that the active tuberculosis cases could be identified. Three vessels were equipped as floating health centers, with medical and dental staffs, X-ray units and laboratory equipment. Mobile units with smaller staffs operated on the highways and Alaska railroad. Airplanes carried X-ray equipment into remote areas to complete the intensive case—finding program. The effort paid off. Over 4,000 active cases of tuberculosis were identified, and by 1955 over 1,000 beds became available to treat the most advanced. By 1960 the death rates had dropped to below 50 per 100,000. During the 1970's a point had been reached where there are very few new cases of tuberculosis and only an occasional death. This dramatic result is considered by many as a monumental public health achievement.

As was mentioned earlier, this success was attributable to a truly cooperative endeavor, primarly between the federal and territorial governments. This became possible and only became fully effective when the health responsibilities were transferred to the Division of Indian Health of the U.S. Public Health Service on July 1, 1955. The Public Health Service had been most helpful during the previous years through cooperative programs, but now they were administratively responsible. Immediately, they were able to secure more adequate appropriations, assign medical personnel. remodel hospitals for efficiency of patient care, re-allocate patient beds for better usage by transferring tuberculosis patients to tuberculosis hospitals, thus freeing beds for acute medical and surgical problems. All this came about because medically trained administrators were in charge. When they appeared before Congress they knew what they were talking about, and they knew how to present the real needs before Congress. Due to these and other much—needed changes, great progress has been achieved and the accomplishments during the last 20 years have been outstanding.

A major handicap, actually logistical, in the Alaska health program has been that of communication and transportation. These two factors were aggressively attacked by the Public Health Service and through their leadership, foresight and energy, sound accomplishments can now be demonstrated. The Eskimo and Indians have always lived in isolated, remote areas in small and large villages. These villages had no communication with each other except by ground transportation by either dog sled or paddled boats. Not until about 50 years ago did the U. S. Army Signal Corps assist in passing messages from some remote communication with villages. Dr. Robert Fortuine, who served as physician in a remote hospital, writes "Physicians held a regular 'sched,' usually in the evening hours, in which they would discuss the management of problem cases with the school teachers, who regularly handled health affairs in the village. Sometimes a single physician would take the 'medical traffic' for the entire territory at one sitting. The system continued to expand and became much more effective when the village health aides did the medical reporting." Dr. Fortuine continues, "The old H. F. system served long and generally well, although it had definite limitations. Not all villages had a school. Ionospheric conditions often interfered with effective transmission and sometimes blocked out voices altogether, even for short distances. Another problem was complete lack of privacy, since many families had a simple short—wave receiver." Refinements of the system by using single—side—band HF radios were made and more privacy was obtained.

The big breakthrough came in 1971 when Satellite I (ATS—I) was stationed over the Pacific and offered the opportunity for the establishment of ground stations in isolated villages where conventional radio signals were most unreliable. This experiment was highly successful and demonstrated that satellites could be used effectively. Dr. Fortuine, in an article "Medicine by Satellite Telephone," writes this encouraging word: "On the afternoon of July 14, 1976, a physician at the Alaska Native Medical Center in Anchorage talked with a physician on St. Paul Island (Pribiloffs) and thus opened a new era in medical communication in Alaska. Both were using a simple telephone—like handset, and the voices were clear and natural at both ends. It was almost as if the other individual were in the same room instead of 800 miles away." Now by using a satellite, completely reliable two—way voice communication on a 24—hour basis can be achieved in over 100 villages. From these more central villages, other methods will reach out into all isolated communities. The Eskimo people are now reassured that medical consultation is available at all hours of the day. As medical communication has improved so much more airplane traffic using wheels, floats and skis provides the means of patients reaching medical facilities. Last but not least, the dog team has largely been replaced by the snowmobile.

One cannot help but conclude that in a relatively short time health care has developed into a workable system of comprehensive health care. The Alaska Native Health Service, the Alaska Department of Health and the private sector of medicine, by working together with the native peoples themselves, have developed a system that has become most effective. That there are still great problems would be understating the case, but to try to develop a new system rather than build and correct the present one would be untimely and probably foolhardy. Thus in the span of my provessional life, I have experienced sound developement of health care for the Eskimo of Alaska. It has extended from the services of a medicine man to the highly skilled competence of well—trained medical personnel. These achievements give me great joy.

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Louise Ormond Hillman M.D.
1922 – 1977

Louise Ormond Hillman, Anchorage internist, died at home after a prolonged struggle with carcinoma of the colon.

She was born in East Orange, New Jersey, daughter of a Rhodes Scholar, niece of renowned Detroit urologist, John K. Ormond. She was graduated from Wellesley College and the University of Rochester School of Medicine, achieving Alpha Omega Alpha at the latter despite finishing a year late because of tuberculosis. She then took an internship at Strong Memorial Hospital and four years of residence-fellowship at Rochester, University of Washington, and Cornell. She was certified in internal medicine and was a member of the American College of Physicians.

In the middle 1950's Dr. Ormond practiced in Seattle, taught at the University, and for nearly three years was full-time at Firlands Sanatorium in Seattle. She married Fred Hillman in 1955. They came to Anchorage in 1958 when Fred began duty as a surgeon at Alaska Native Service Hospital. Louise was a consultant in internal medicine there for many years. By 1960 she was in practice in Anchorage, establishing the first solo practice of internal medicine within the state. She is remembered by her patients for her compassion, originality in approach, and attention to detail.

In 1965 Louise gave up practice in favor of motherhood, successively adopting three sons now ages 10, 9, and 6. She found far more fulfillment in her family than in medicine, but continued part-time in medicine as consultant to the Alaska Division of Occupational Rehabilitation.

In recent years she and her husband became deeply involved in Transactional Analysis. Late in the course of her painful illness she passed the first part of a difficult examination which eventually would have qualified her as an analyst in this technique.

Her wide world of friends in Anchorage and Seattle will remember Louise as a gentle, warm, and affable person. There was not a speck of cynicism or bitterness within her. Her finest quality was that she found fascination and worth in everyone, — — in the mean and accomplished alike.

A few weeks before she died Louise was asked what period of her life she looked upon with the greatest satisfaction. Her startling answer: "now". She was at peace.

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References:
*National Disease & Therapeutic Index, Jan.-Dec., 1976, IMS America Ltd., Ambler, Pa 1976.
†Amer. Med. Assn., Dept. of Drugs, A.M.A. Drug Evaluations, 2nd Edition, Publishing Sciences Group, Inc., Acton, Mass., 1973, pp 482-3

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> ***Usage in Pregnancy:*** **Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (e.g., excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.
Adverse Reactions: Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests advisable during protracted therapy.
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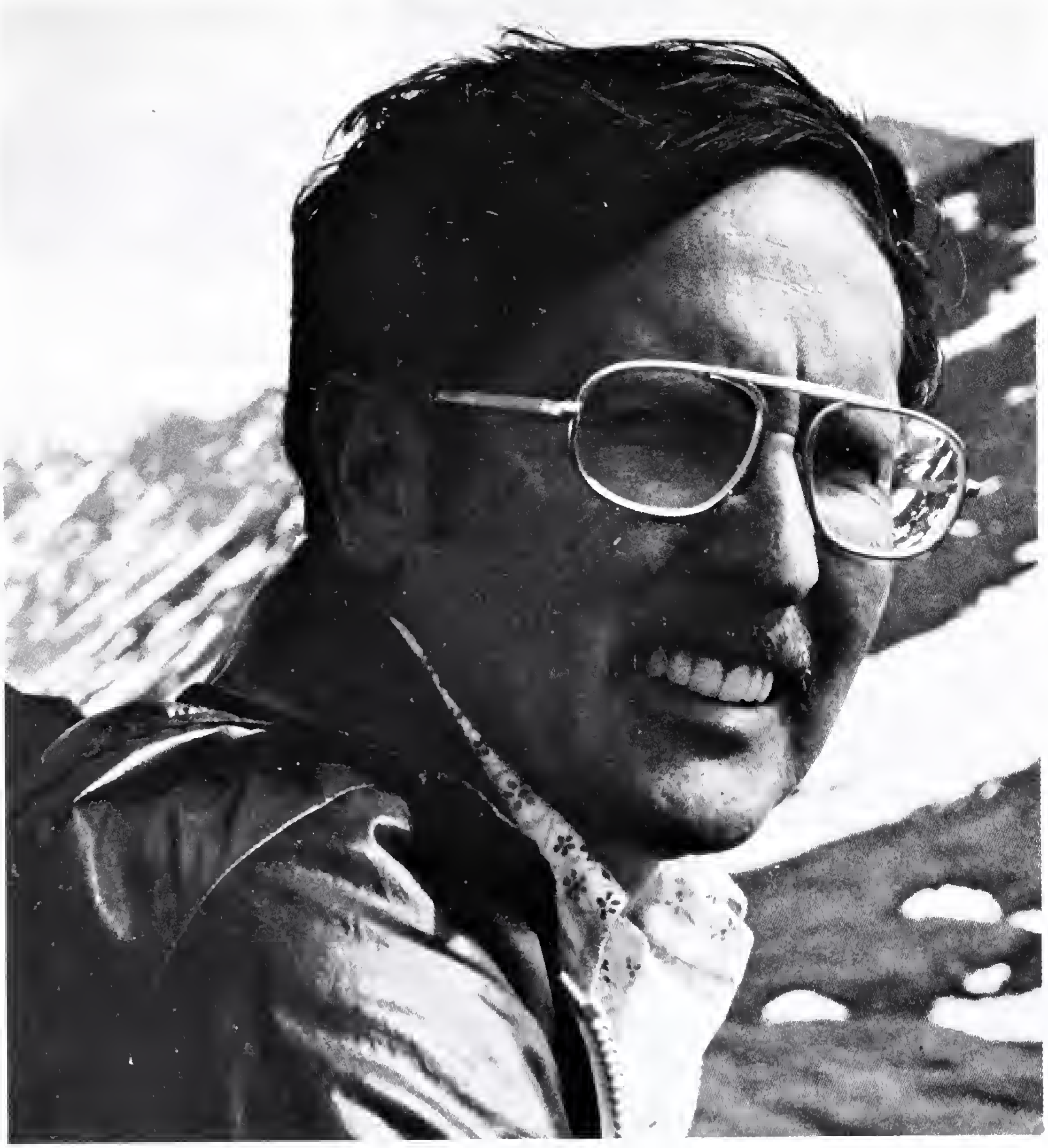

Herbert Bias, M.D.

1940 — 1977

On July 30, 1977, Herb Bias died in a tragic private plane crash in the foothills of the Chugach Mountains while on a solo practice flight. Born in Shawnee, Oklahoma on July 7, 1940, Herb was always proud of his "Okie" background. He attended Oklahoma State and received his B.S. degree in 1964. He graduated from the University of Oklahoma Medical School in 1968 and did his internship at the Virginia Mason Clinic. He did a year of residency in obstetrics and gynecology at the University of Oregon before entering the University of Oklahoma Urology residency in 1970. Upon completing his residency in 1973, he entered military service and was stationed at Elmendorf Air Force Base in Anchorage. He was a member of the Alaska Clinic from 1975 to 1976 before entering the solo practice of Urology in July of 1976. He was Board Certified and quickly achieved a reputation for not only great technical skill but a thorough fundamental knowledge of his specialty and a quick mind under pressure.

Herb Bias possessed those qualities that many people claim are lost in present day young physicians, — a warm, caring personality, a capacity for hard work, and undaunted enthusiasm for his profession as well as life in general. When other memories fade, Herb's laughter and consistent good humor will be there for us to remember. We all mourn the loss of this great physician and warm human being and extend our sincerest sympathy to his family.

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Also for the treatment of documented *Pneumocystis carinii* pneumonitis. To date, this drug has been tested only in patients 9 months to 16 years of age who were immunosuppressed by cancer therapy.

The recommended quantitative disc susceptibility method (*Federal Register,* 37:20527-20529, 1972) may be used to estimate bacterial susceptibility to Bactrim. A laboratory report of "Susceptible to trimethoprim-sulfamethoxazole" indicates an infection likely to respond to Bactrim therapy. If infection is confined to the urine, "Intermediate susceptibility" also indicates a likely response. "Resistant" indicates that response is unlikely.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; pregnancy; nursing mothers; infants less than two months of age.

Warnings: Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for infants less than two months of age.

Urinary Tract Infections: Usual adult dosage—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days.

Recommended dosage for children—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. A guide follows:

Children two months of age or older

Weight		Dose—every 12 hours	
lbs	kgs	Teaspoonfuls	Tablets
20	9	1 teasp. (5 ml)	½ tablet
40	18	2 teasp. (10 ml)	1 tablet
60	27	3 teasp. (15 ml)	1½ tablets
80	36	4 teasp. (20 ml)	2 tablets or 1 DS tablet

For patients with renal impairment:

Creatinine Clearance (ml/min)	Recommended Dosage Regimen
Above 30	Usual standard regimen
15-30	½ the usual regimen
Below 15	Use not recommended

Pneumocystis carinii pneumonitis: Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

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